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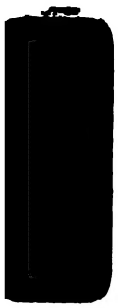

15 & 16 VICTORIÆ, Cap. 83. Sec. XXXII.

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PATENTS APPLIED FOR AND PATENTS GRANTED,

For the Year 1866.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACCIDENTS (*Prevention of.*)			
Apparatus for preventing accidents on railways -	149	16th Jan. 1866	William Lyne.
An improved generator for steam-engines - - (*preventing explosion.*) (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
Obtaining motive-power either giving or not giving light. (*preventing explosions.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Improved apparatus or means for securing the safety of persons travelling by railway trains.	304	31st Jan. 1866	Coleman Defries.
Fire-escapes - - - - - -	381	8th Feb. 1866	Joseph Sawyer. Samuel Middleton.
Construction of ships with a view to the saving of life at sea.	560	23rd Feb. 1866	Martin Samuelson.
An improved apparatus for saving life at sea, also adapted for use on all occasions to keep persons afloat in water.	658	3rd March 1866	Candido Ravelli.
An improved safety valve for steam-boilers -	665	5th March 1866	Henry Hackett.
An improved fire-escape - - - - -	818	20th March 1866	Ralph Augustine Jones. John Cooper Hedges.
Water tuyeres - - - - - - (*preventing explosion.*)	1043	12th April 1866	Edward Devey.
Working the switches or points upon railways - (*Communicated by Auguste Louis Risbourg.*)	1119	20th April 1866	William Edward Newton.
Draining and consolidating cuttings, embankments and other parts of railways.	1175	26th April 1866	John Curtis.
Apparatus for the prevention of steam-boiler explosions - - - - - -	1197	27th April 1866	Edwin Bray. John Crosby Hargreaves.
Improvements in the manufacture of tapers and of friction matches, and in the means of igniting friction matches.	1324	8th May 1866	Samuel Alexander Bell.
Improvements in the rails or permanent way of railways, and in the means of guiding and retaining locomotives and carriages thereon, for obtaining additional safety in travelling.	1458	25th May 1866	John Cooke.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee
ACCIDENTS—*continued.*			
Miner's safety lamps - - - -	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.
Improvements in the construction of life boats and in sails for the same, for the purpose of saving life at sea - - - -	1659	21st June 1866	William Forgie. John Thornton.
The application of certain spirituous compounds for the production of motive-power.	1714	27th June 1866	John Jordan.
An improved apparatus for stopping or curbing horses when they run away or become unmanageable.	1847	14th July 1866	George Day.
Producing and super-heating steam - - (*Communicated by James Farquharson M'Kenzie.*)	1913	23rd July 1866	George Tomlinson Bousfield.
Machinery or apparatus for actuating and regulating railway points and signals - -	1963	30th July 1866	John M'Kenzie. Thomas Clunes. Walter Holland.
Apparatus for holding and releasing cords, chains, ropes and bands - - - -	1979	1st Aug. 1866	Walter Beaumont. William M'Master.
Improvements in the construction of fire-escapes, such improvements being applicable to the construction of apparatus for analogous purposes.	1990	2nd Aug. 1866	Ephraim Lamb.
Construction of fire-escapes - - -	2021	6th Aug. 1866	Ephraim Lamb.
Self-acting steam and liquid safety gauges -	2161	23rd Aug. 1866	John Ambrose Coffey.
Improvements in or connected with carriage breaks (*Communicated by Jean Pierre Haffner and Louis Désiré Guillet.*)	2203	27th Aug. 1866	Clinton Edgcumbe Brooman.
Improvements in steam-boilers and in apparatus connected therewith.	2332	11th Sept. 1866	Thomas Baldwin.
Machinery for stopping or retarding railway trains and preventing accidents on railways.	2423	21st Sept. 1866	Gilbert Amable Laurent.
Improved means or appliances for preventing ships or vessels from foundering, by imparting additional buoyancy thereto.	2498	27th Sept. 1866	Joseph Eugene Thibault.
An improved fire-escape - - - -	2507	28th Sept. 1866	William Ryan. William Egar.
A safety belt or apparatus for use in travelling, to prevent injuries from concussions or otherwise.	2510	28th Sept. 1866	Charles Fox.
Safety valves - - - - -	2539	3rd Oct. 1866	John Russell Swann.
Apparatus for preventing injury to persons in railway trains. (*Communicated by The Baron Von Roesgen Von Floss.*)	2621	10th Oct. 1866	William Manby.
An improved apparatus for preventing explosions in steam-boilers.	2634	11th Oct. 1866	Isaac Mark Evans.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (*Communicated by Felix Bizard and Pierre Labarre.*)	2700	18th Oct. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACCIDENTS—*continued.*			
A new or improved markers' butt or mantlet, together with an improved danger flag and signals for rifle shooting.	2729	23rd Oct. 1866	Robert Thomas Williams.
Improvements in the manufacture of safety fuses and in the machinery, apparatus or means employed therein. (*Communicated by William Robert Whitehorn.*)	2771	26th Oct. 1866	James Harebooth Gresham.
Improvements in the construction of ships' boats, which improvements are chiefly applicable to the construction of life boats.	2776	26th Oct. 1866	Tristram Shandy Simpson.
Securing perfect immunity from danger in the use of parafine, camphine and other lamps liable hitherto to explode, whether fed by rock oil, crystal oil, parafine, camphine, belmontine or other combustible carbonaceous oils.	2778	27th Oct. 1866	Edward Howard.
Fire-escapes - - - - - -	2784	27th Oct. 1866	Walker Richard Barnes.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes.	2816	31st Oct. 1866	John Scott.
Method of placing, stowing and employing life rafts on board ship.	3013	17th Nov. 1866	John Witherden Hurst.
Safety lamps - - - - - -	3045	20th Nov. 1866	Evan Thomas.
A new or improved artificial incubator - - (*safety valve.*)	3057	21st Nov. 1866	John Brindley.
Improvements in machinery or apparatus for the prevention of collisions and other accidents on railways, and for generally promoting increased safety in railway travelling.	3191	4th Dec. 1866	William Edwin Hickling.
A novel buoy or apparatus for storing valuable property on ship board and preserving the same in case of shipwreck.	3238	8th Dec. 1866	François César Buisson.
Railway buffers - - - - - -	3261	11th Dec. 1866	Thomas Henry Cooper.
Steam-boilers - - - - -	3272	13th Dec. 1866	Patrick Heyns.
Apparatus connected with steam-boilers for regulating the evaporating power thereof and to obtain greater safety in their use - -	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
An improved safety attachment to carriages - (*Communicated by Claude Ducrue.*)	3418	29th Dec. 1866	Alfred Vincent Newton.
ACIDS AND VINEGAR.			
Treating fatty and oily bodies - - -	330	2nd Feb. 1866	George Gwynne.
Burning or calcining and preparing for burning or calcining copper, iron and other ores containing sulphur, for the manufacture of sulphuric acid.	1002	7th April 1866	Edmund Knowles Muspratt.
Apparatus for the treatment of certain fatty and oily substances in order to obtain products therefrom. (*fatty acids.*) (*Communicated by Henri Edouard Renner.*)	1014	9th April 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACIDS, &c.—*continued.*			
An improvement in the manufacture of metallic acetates and carbonates simultaneously with the production of vinegar and glucose.	1332	9th May 1866	Robert Rowland.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains in order to convert it into a spirit or liquid suitable for manufacturing purposes.	1445	23rd May 1866	Edward Gripper.
A new process in the treatment of concrete fatty acids for the manufacture of candles, called 'stearine candles.'	1626	15th June 1866	Louis Adolphe *de Milly*.
Improved apparatus for treating corn and other materials. (*or for vinegar works.*)	1693	25th June 1866	Gaston Charles Ange, Marquis of Auxy.
Treatment of certain residues in order to obtain fatty acids therefrom - - - -	1885	19th July 1866	Robert Irvine. Peter Brash.
Manufacture of oxalic acid - - - -	1969	31st July 1866	Frank Clarke Hills.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Haydn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.
Use and application of an inorganic glyceric ether -	2115	17th Aug. 1866	Alfred Paraf.
An improvement connected with the bleaching of fibrous substances, and with the manufacture of bleaching powder, bleach liquor or sulphuric acid.	3091	24th Nov. 1866	Carl Dietrich Julius Seits.
Improvements in the reduction and treatment of zinc ores in the manufacture of spelter, and in the utilization of the products resulting therefrom, and also in the construction of the furnaces and apparatus employed for such purposes. (*producing sulphuric acid.*)	3117	27th Nov. 1866	Charles Crockford.
Manufacture and treatment of hydrochloric and nitric acids.	3269	13th Dec. 1866	Isham Baggs.
Preparation and application of certain fatty bodies - (*Communicated by Mathias Paraf Javal and Eugene Paraf Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
Effecting the combustion of substances in a pulverulent state. (*pyrites for producing sulphurous acid.*) (*Communicated by Aimé Victor Olivier.*)	3354	20th Dec. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ADVERTISING.			
An improved self acting card distributor (*for advertising.*)	652	3rd March 1866	Edward Edwards Colley. Walter Moss.
A new method of advertising	1133	21st April 1866	Henri Aux Cousteaux.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*advertising cards.*)	1582	8th June 1866	Henry Josiah Griswold.
A new mode of advertising	1590	11th June 1866	Pierre Lerouge.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for advertising boards.*)	1898	21st July 1866	Edward Tomlinson.
Manufacture of show cards, bills or tablets for advertising purposes.	2690	18th Oct. 1866	Benjamin George George.
Ornamenting and reducing certain figured and embossed sufaces for various useful purposes. (*for placards.*)	2937	10th Nov. 1866	Gustave Josse.
Improved means of and apparatus for advertising (*Communicated by Justin Dubreuil and Camille Barnard.*)	3343	31st Dec. 1866	John Henry Johnson.
AËRATING; AERATED LIQUIDS; CARBURETTING AIR AND GAS.			
Improved apparatus for carburetting air and gas	498	16th Feb. 1866	Edward John Cowling Welch.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein.	513	17th Feb. 1866	Joshua Kidd.
An improvement in the manufacture of ice to fit it for making effervescing drinks.	800	17th March 1866	Olivier Weldon Jeyes.
An improvement in aërated waters	927	31st March 1866	Robert Hineson.
Apparatus for drawing off aërated liquids (*Communicated by Pierre Alcide Olivier and Alphonse Brisset.*)	1035	11th April 1866	William Clark.
A new unfermented beverage	1080	17th April 1866	Charles Joseph Berry King, M.D.
Improved apparatus for treating corn and other materials. (*aërating.*)	1693	25th June 1866	Gaston Charles Ange Marquis of Auxy.
An improved apparatus for stoppering bottles	2833	1st Nov. 1866	Jules Becker.
An improved cap or cover to be applied for securing and labelling bottles. (*for aërated waters.*)	3230	7th Dec. 1866	John McGlashan.

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AËRIAL MACHINES; AËROSTATION.			
Aërostatic apparatus - - - -	1143	23rd April 1866	James William Butler.
Apparatus for aërial navigation - - -	1571	7th June 1866	Francis Herbert Wenham.
Apparatus for employing the motive-power of jets of fluid. (*propelling aërial vessels.*)	2489	26th Sept. 1866	Matthew Piers Watt Boulton.
Apparatus for employing the motive-power of jets of fluid. (*propelling vessels through the air.*)	2809	30th Oct. 1866	Matthew Piers Watt Boulton.
Improvements in applying jets of steam, by action and reaction, to propel vessels and aërial conveyances, with other improvements in the latter and in the machinery for both, parts of which are applicable for other hydro and aëro purposes.	3262	12th Dec. 1866	Richard Boyman Boyman.
AIR, GAS AND WIND ENGINES AND MILLS; PNEUMATIC MOTIVE-POWER.			
Means and apparatus for producing and employing motive-power.	27	4th Jan. 1866	Thomas Telford Macneill.
Certain improvements in the method of obtaining motive-power and in apparatus connected therewith.	62	9th Jan. 1866	Edmund Perré.
Means and apparatus for obtaining and applying motive-power. (*Communicated by Alexandre Bobrownicki.*)	181	19th Jan. 1866	William Clark.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Obtaining motive-power either giving or not giving light. (*by hot air.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Gas and air engines - - - - (*Communicated by Eugen Langen and Auguste Nicol Otto.*)	434	12th Feb. 1866	Charles Denton Abel.
Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (*Communicated by Guillaume Lemaire Malherbe.*)	444	13th Feb. 1866	Montague Richard Leverson.
An improved mode of and apparatus for working air-engines. (*Communicated by John Bowman Atwater.*)	684	6th March 1866	Alfred Vincent Newton.
Apparatus for obtaining motive-power - -	804	17th March 1866	Geminiano Zanni.
Engines for obtaining rotary motion by means of steam, gas or other fluids. (*Communicated by Marie Joseph Denis Farcot and Joseph Perrigault.*)	1206	28th April 1866	Henry Edward Newton.
Valves for steam and other engines - -	1304	8th May 1866	Mathew Hutton Atkinson.
Construction of rotary engines to be worked by steam or other power.	1385	15th May 1866	Bryce Grey Nichol.

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A new method of obtaining motive-power, and the apparatus employed therein.	1422	19th May 1866	Mathew Semple.
Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
The application of certain spirituous compounds for the production of motive-power. (*see* "STEAM-BOILERS.")	1714	27th June 1866	John Jordan.
Apparatus for compressing air by means of water - (*as a motive-power.*)	1837	13th July 1866	Charles Ferdinand Dietrich.
Motive-power engines - - - - -	1848	14th July 1866	William Justice.
A new or improved mode of constructing a motive-power wheel, whereby to obtain permanent motion by the application of compressed air or any other elastic fluid.	1899	21st July 1866	Anthony Bernhard Baron Von Rathen. George Henry Ellis.
Motive-power engines - - - - -	1927	25th July 1866	Henry Prince.
Motive-power engines - - - - -	2011	4th Aug. 1866	Caleb Pratt. Josiah Pratt.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, timepieces and other mechanism, and also for ventilating hot houses, green houses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
A new or improved compressed air-engine, combined with a new mode and appropriate construction of the engine for preventing the escape of air.	2377	15th Sept. 1866	Anthony Bernhard Baron Von Rathen.
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Heated air-engines - - - - - -	2633	11th Oct. 1866	Henry Messer.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places.	2744	24th Oct. 1866	Joseph Watts.
An improved vacuum air-engine - - - (*Communicated by John Robertson Cameron.*)	2824	31st Oct. 1866	William Edward Newton.
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Machinery or apparatus for obtaining motive-power.	3125	27th Nov. 1866	Richard George.
Rotary engines - - - - - - (*Communicated by Auguste Gerin.*)	3207	5th Dec. 1866	William Clark.
Arrangements and apparatus for obtaining motive-power.	3383	21st Dec. 1866	James Anderson.

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II.—Weaving Plain, Figured and Double Fabrics; Jacquards and Looms; Woven Fabrics - - - - - - - - - 444

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OF

PATENTS APPLIED FOR AND PATENTS GRANTED,

For the Year 1866.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACCIDENTS (*Prevention of.*)			
Apparatus for preventing accidents on railways -	149	16th Jan. 1866	William Lyne.
An improved generator for steam-engines - - (*preventing explosion.*) (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
Obtaining motive-power either giving or not giving light. (*preventing explosions.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Improved apparatus or means for securing the safety of persons travelling by railway trains.	304	31st Jan. 1866	Coleman Defries.
Fire-escapes - - - - - -	381	8th Feb. 1866	Joseph Sawyer. Samuel Middleton.
Construction of ships with a view to the saving of life at sea.	560	23rd Feb. 1866	Martin Samuelson.
An improved apparatus for saving life at sea, also adapted for use on all occasions to keep persons afloat in water.	658	3rd March 1866	Candido Ravelli.
An improved safety valve for steam-boilers -	665	5th March 1866	Henry Hackett.
An improved fire-escape - - - - -	818	20th March 1866	Ralph Augustine Jones. John Cooper Hedges.
Water tuyeres - - - - - - (*preventing explosion.*)	1043	12th April 1866	Edward Devey.
Working the switches or points upon railways - (*Communicated by Auguste Louis Risbourg.*)	1119	20th April 1866	William Edward Newton.
Draining and consolidating cuttings, embankments and other parts of railways.	1175	26th April 1866	John Curtis.
Apparatus for the prevention of steam-boiler explosions - - - - - -	1197	27th April 1866	Edwin Bray. John Crosby Hargreaves.
Improvements in the manufacture of tapers and of friction matches, and in the means of igniting friction matches.	1324	8th May 1866	Samuel Alexander Bell.
Improvements in the rails or permanent way of railways, and in the means of guiding and retaining locomotives and carriages thereon, for obtaining additional safety in travelling.	1458	25th May 1866	John Cooke.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee
ACCIDENTS—*continued.*			
Miner's safety lamps	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.
Improvements in the construction of life boats and in sails for the same, for the purpose of saving life at sea	1659	21st June 1866	William Forgie. John Thornton.
The application of certain spirituous compounds for the production of motive-power.	1714	27th June 1866	John Jordan.
An improved apparatus for stopping or curbing horses when they run away or become unmanageable.	1847	14th July 1866	George Day.
Producing and super-heating steam (*Communicated by James Farquharson M'Kenzie.*)	1913	23rd July 1866	George Tomlinson Bousfield.
Machinery or apparatus for actuating and regulating railway points and signals	1963	30th July 1866	John M'Kenzie. Thomas Clunes. Walter Holland.
Apparatus for holding and releasing cords, chains, ropes and bands	1979	1st Aug. 1866	Walter Beaumont. William M'Master.
Improvements in the construction of fire-escapes, such improvements being applicable to the construction of apparatus for analogous purposes.	1990	2nd Aug. 1866	Ephraim Lamb.
Construction of fire-escapes	2021	6th Aug. 1866	Ephraim Lamb.
Self-acting steam and liquid safety gauges	2161	23rd Aug. 1866	John Ambrose Coffey.
Improvements in or connected with carriage breaks (*Communicated by Jean Pierre Haffner and Louis Désiré Guillet.*)	2203	27th Aug. 1866	Clinton Edgcumbe Brooman.
Improvements in steam-boilers and in apparatus connected therewith.	2332	11th Sept. 1866	Thomas Baldwin.
Machinery for stopping or retarding railway trains and preventing accidents on railways.	2423	21st Sept. 1866	Gilbert Amable Laurent.
Improved means or appliances for preventing ships or vessels from foundering, by imparting additional buoyancy thereto.	2498	27th Sept. 1866	Joseph Eugene Thibault.
An improved fire-escape	2507	28th Sept. 1866	William Ryan. William Egar.
A safety belt or apparatus for use in travelling, to prevent injuries from concussions or otherwise.	2510	28th Sept. 1866	Charles Fox.
Safety valves	2539	3rd Oct. 1866	John Russell Swann.
Apparatus for preventing injury to persons in railway trains. (*Communicated by The Baron Von Roesgen Von Floss.*)	2621	10th Oct. 1866	William Manby.
An improved apparatus for preventing explosions in steam-boilers.	2634	11th Oct. 1866	Isaac Mark Evans.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (*Communicated by Felix Bizard and Pierre Labarre.*)	2700	18th Oct. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACCIDENTS—*continued.*			
A new or improved markers' butt or mantlet, together with an improved danger flag and signals for rifle shooting.	2729	23rd Oct. 1866	Robert Thomas Williams.
Improvements in the manufacture of safety fuzes and in the machinery, apparatus or means employed therein. (*Communicated by William Robert Whitehorn.*)	2771	26th Oct. 1866	James Harebooth Gresham.
Improvements in the construction of ships' boats, which improvements are chiefly applicable to the construction of life boats.	2776	26th Oct. 1866	Tristram Shandy Simpson.
Securing perfect immunity from danger in the use of parafine, camphine and other lamps liable hitherto to explode, whether fed by rock oil, crystal oil, parafine, camphine, belmontine or other combustible carbonaceous oils.	2778	27th Oct. 1866	Edward Howard.
Fire-escapes - - - - - -	2784	27th Oct. 1866	Walker Richard Barnes.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes.	2816	31st Oct. 1866	John Scott.
Method of placing, stowing and employing life rafts on board ship.	3013	17th Nov. 1866	John Witherden Hurst.
Safety lamps - - - - - -	3045	20th Nov. 1866	Evan Thomas.
A new or improved artificial incubator - - (*safety valve.*)	3057	21st Nov. 1866	John Brindley.
Improvements in machinery or apparatus for the prevention of collisions and other accidents on railways, and for generally promoting increased safety in railway travelling.	3191	4th Dec. 1866	William Edwin Hickling.
A novel buoy or apparatus for storing valuable property on ship board and preserving the same in case of shipwreck.	3238	8th Dec. 1866	François César Buisson.
Railway buffers - - - - - -	3261	11th Dec. 1866	Thomas Henry Cooper.
Steam-boilers - - - - -	3272	13th Dec. 1866	Patrick Heyns.
Apparatus connected with steam-boilers for regulating the evaporating power thereof and to obtain greater safety in their use - -	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
An improved safety attachment to carriages - (*Communicated by Claude Ducrus.*)	3418	29th Dec. 1866	Alfred Vincent Newton.
ACIDS AND VINEGAR.			
Treating fatty and oily bodies - - -	330	2nd Feb. 1866	George Gwynne.
Burning or calcining and preparing for burning or calcining copper, iron and other ores containing sulphur, for the manufacture of sulphuric acid.	1002	7th April 1866	Edmund Knowles Muspratt.
Apparatus for the treatment of certain fatty and oily substances in order to obtain products therefrom. (*fatty acids.*) (*Communicated by Henri Edouard Renner.*)	1014	9th April 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ACIDS, &c.—*continued.*			
An improvement in the manufacture of metallic acetates and carbonates simultaneously with the production of vinegar and glucose.	1332	9th May 1866	Robert Rowland.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains in order to convert it into a spirit or liquid suitable for manufacturing purposes.	1445	23rd May 1866	Edward Gripper.
A new process in the treatment of concrete fatty acids for the manufacture of candles, called 'stearine candles.'	1626	15th June 1866	Louis Adolphe de Milly.
Improved apparatus for treating corn and other materials. (*or for vinegar works.*)	1693	25th June 1866	Gaston Charles Ange, Marquis of Auxy.
Treatment of certain residues in order to obtain fatty acids therefrom - - - -	1885	19th July 1866	Robert Irvine. Peter Brash.
Manufacture of oxalic acid - - -	1969	31st July 1866	Frank Clarke Hille.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Haydn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.
Use and application of an inorganic glyceric ether -	2115	17th Aug. 1866	Alfred Paraf.
An improvement connected with the bleaching of fibrous substances, and with the manufacture of bleaching powder, bleach liquor or sulphuric acid.	3091	24th Nov. 1866	Carl Dietrich Julius Seitz.
Improvements in the reduction and treatment of zinc ores in the manufacture of spelter, and in the utilization of the products resulting therefrom, and also in the construction of the furnaces and apparatus employed for such purposes. (*producing sulphuric acid.*)	3117	27th Nov. 1866	Charles Crockford.
Manufacture and treatment of hydrochloric and nitric acids.	3269	13th Dec. 1866	Isham Baggs.
Preparation and application of certain fatty bodies - (*Communicated by Mathias Paraf Javal and Eugene Paraf Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
Effecting the combustion of substances in a pulverulent state. (*pyrites for producing sulphurous acid.*) (*Communicated by Aimé Victor Olivier.*)	3354	20th Dec. 1866	William Edward Newton.

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ADVERTISING.			
An improved self acting card distributor (*for advertising.*)	652	3rd March 1866	Edward Edwards Colley. Walter Moss.
A new method of advertising	1133	21st April 1866	Henri Aux Cousteaux.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*advertising cards.*)	1582	8th June 1866	Henry Josiah Griswold.
A new mode of advertising	1590	11th June 1866	Pierre Lerouge.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for advertising boards.*)	1898	21st July 1866	Edward Tomlinson.
Manufacture of show cards, bills or tablets for advertising purposes.	2690	18th Oct. 1866	Benjamin George George.
Ornamenting and reducing certain figured and embossed sufaces for various useful purposes. (*for placards.*)	2937	10th Nov. 1866	Gustave Josse.
Improved means of and apparatus for advertising (*Communicated by Justin Dubreuil and Camille Barnard.*)	3343	31st Dec. 1866	John Henry Johnson.
AËRATING; AËRATED LIQUIDS; CARBURETTING AIR AND GAS.			
Improved apparatus for carburetting air and gas	498	16th Feb. 1866	Edward John Cowling Welch.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein.	513	17th Feb. 1866	Joshua Kidd.
An improvement in the manufacture of ice to fit it for making effervescing drinks.	800	17th March 1866	Olivier Weldon Jeyes.
An improvement in aërated waters	927	31st March 1866	Robert Hineson.
Apparatus for drawing off aërated liquids (*Communicated by Pierre Alcide Olivier and Alphonse Brisset.*)	1035	11th April 1866	William Clark.
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Improved apparatus for treating corn and other materials. (*aërating.*)	1693	25th June 1866	Gaston Charles Ange Marquis of Auxy.
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Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
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Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR ENGINES, &c.—*continued.*			
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces.	3373	22nd Dec. 1866	Joseph Sloper.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating, and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.
See also "GOVERNORS."			
AIR SUPPLYING, BLOWING, EXHAUSTING; DRAFT AND VENTILATION.			
I.—Supplying Air to Furnaces, Stoves, Lamps, &c.; Increasing and Regulating Draft; Tuyeres; Dampers; Chimney Wind Guards; Heating Blast.			
Furnaces - - - - - - -	5	1st Jan. 1866	Thomas Prideaux.
Improvements applicable to furnaces or fireplaces, for the purpose of more effectually and economically consuming the fuel therein.	25	3rd Jan. 1866	Bewicke Blackburn.
Smiths' forges and furnaces for smelting and puddling iron, steel and other metals - -	38	5th Jan. 1866	William John Symons. Nathaniel Augustus Tover Symons.
Furnaces - - - - - - -	80	10th Jan. 1866	Edward Brown Wilson.
Lamps - - - - - - - (*Communicated by Anson Henry Platt.*)	113	13th Jan. 1866	William Robert Lake.
Improvements in the construction of articles usually termed blowers, being plates or curtains applied to enclose stove fronts, and in the means of affixing the same.	150	16th Jan. 1866	James Stephens.
Machinery and apparatus used in the manufacture of steel and iron.	154	17th Jan. 1866	Francis Preston.
Lamps for burning paraffin, petroleum, belmontine and other hydrocarbon oils, without the use of a glass chimney.	203	22nd Jan. 1866	Thomas Rowatt.
An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass	208	22nd Jan. 1866	Pynson Wilmot Bennitt. Joseph Matthews.
Cases or apparatus for drying moulds - -	231	24th Jan. 1866	Mathew Hodgson Lishman. Edward Chambers.
Mode of and apparatus for compressing air or aëriform fluids, for the generation of motive-power and other purposes. (*for feeding furnaces.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Obtaining motive-power either giving or not giving light. (*for supplying air to furnaces.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Railway and other lamps	307	31st Jan. 1866	Charles Emile Giajola.
Steam-boilers or generators	310	31st Jan. 1866	William Woodward. John Woodward.
Furnaces for steam-boilers and for other purposes	336	3rd Feb. 1866	Thomas Moldem.
Improvements in and applicable to grates and in the mode of fixing the same.	445	13th Feb. 1866	William Young.
Apparatus for effecting the consumption of smoke in steam-boiler and other similar furnaces.	487	15th Feb. 1866	Charles Gall.
Improvements in signal, street and other lamps, and in gas burners.	619	28th Feb. 1866	Richard Clark.
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*supplying heated air to the furnace.*) (*Communicated by Robert Creusbaur.*)	657	3rd March 1866	John Bischoff.
Puddling and converting furnaces	700	8th March 1866	Thomas Prideaux.
Means or apparatus for obtaining light by the combustion of magnesium.	729	9th March 1866	Richard Larkin.
Arranging steam-boiler and other furnaces in order to render them more suitable for burning petroleum and like oils.	731	10th March 1866	Charles James Richardson.
Improved means of preventing the smoking of chimnies and flues, and for the curing of smokey chimnies and flues, and for preventing down draught of chimnies and flues.	741	12th March 1866	Stephen Jakins.
Improvements relating to the boilers and engines of steam ships.	759	14th March 1866	John Elder.
The prevention or consumption of smoke	821	20th March 1866	William Naylor.
Improved means or apparatus for generating steam in steam-boilers.	878	24th March 1866	Robert Newton.
Construction of coke ovens (*and heating blast.*)	919	29th March 1866	Charles Pardoe.
Improvements in and applicable to grates, fireplaces and furnaces.	1029	11th April 1866	William Young.
Water tuyeres	1043	12th April 1866	Edward Devey.
Hot-blast stoves or apparatus for heating blast for smelting iron.	1137	21st April 1866	John Player.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
Certain improvements in gas lamps subject to the exposure of high winds and uncertain draughts.	1188	27th April 1866	James Wavish.
Steam-boilers	1200	28th April 1866	David Thomson.
Improvements in the arrangement of furnaces and apparatus connected therewith, for facilitating the combustion of smoke, and for preventing the cold air from going into the flues during the act of firing.	1210	28th April 1866	William Begg.
Apparatus for consuming smoke	1253	2nd May 1866	John Botterill.
Cupola and other furnaces	1292	5th May 1866	Samuel Chatwood. John Sturgeon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Lime kilns or apparatus to be used in burning lime.	1317	8th May 1866	John Russell Swann.
Apparatus to be employed in evaporating volatile and combustible liquids, to obtain light or heat therefrom - - - - -	1320	8th May 1866	James Lee Norton. Alfred Giles.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*Communicated by Jakob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Lamps for burning mineral and other oils - - (*Communicated by Etienne Jammes.*)	1394	16th May 1866	William Clark.
Furnaces for obtaining perfect combustion of fuel -	1398	17th May 1866	Josiah Hampton.
Use and application of fuel, and of chemical reagents to eliminate its impurities or those of the substances it is to heat - - - - -	1471	26th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets - - - - - -	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Improvements in the method of burning coals (whether large or small coals), coal dust, coke dust, charcoal, wood and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.	1594	12th June 1866	Thomas Joseph Leigh.
Improvements in furnaces, furnace doors and furnace bars.	1599	12th June 1866	Robert Alfred Wright.
Improvements in smelting iron ores and in apparatus used with blast furnaces. (*heating blast.*)	1734	29th June 1866	Henry Hobson.
Construction of furnaces and kilns - - - (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
Locomotive engines and tenders - - - - (*equalizing draft.*) (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
Certain improvements in furnaces - - -	1892	21st July 1866	Richard Hooper.
Improved means or apparatus for consuming smoke in the furnaces of steam-boilers, also in other furnaces where applicable.	1901	21st July 1866	Robert Newton.
Grate bars for furnaces and fire-places - - (*Communicated by William M'Monnies.*)	1916	24th July 1866	John Henry Johnson.
Lamps for burning petroleum oil and other volatile liquid hydrocarbons - - - - -	1930	25th July 1866	James Hinks. Joseph Hinks.
Hot blast for smelting and other furnaces - -	1962	30th July 1866	Jonathan Pickering.
An improved method of promoting combustion of fuel in steam-boiler furnaces and other furnaces. (*Communicated by Clark Fisher.*)	1985	1st Aug. 1866	William Edward Newton.
An improved heating apparatus - - - (*Communicated by Sidney Smith.*)	2105	16th Aug. 1866	William Robert Lake.
Puddling furnaces - - - - (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.
Chimney pots or terminals - - - - -	2208	28th Aug. 1866	James Proctor.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Air Supplying, &c.—*continued.*			
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces. (*forming dampers.*)	2259	3rd Sept. 1866	David Caddick.
Furnaces for the manufacture of glass, commonly called melting furnaces.	2278	5th Sept. 1866	Thomas George Webb.
Ovens for baking - - - - -	2291	6th Sept. 1866	George Pimm.
A new or improved chimney cowl or ventilator -	2307	8th Sept. 1866	Michael Tossell.
Apparatus applicable to marine steam-boilers - (*Communicated by Jean Baptiste Thierry, junr.*)	2339	11th Sept. 1866	George Tomlinson Bousfield.
Certain improvements in water tuyeres - -	2372	15th Sept. 1866	Noah Dunn.
Certain new and useful improvements in steam jets. (*Communicated by David Meeker Nichols.*)	2388	17th Sept. 1866	George Tomlinson Bousfield.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Bérard.
Improvements in puddling and heating furnaces, and other furnaces used in the manufacture of iron and steel.	2494	27th Sept. 1866	John Burgum.
Grate bars - - - - - - (*Communicated by Samuel Harrison.*)	2559	4th Oct. 1866	John Henry Johnson.
Improvements in furnaces or fire-places and in the fire-bars to be used therein.	2586	8th Oct. 1866	James Robertson.
Improvements in the melting and casting of steel, and in the apparatus employed therein - -	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture - - - - -	2614	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of iron and steel, and in the apparatus employed therein -	2616	9th Oct. 1866	George Henry Benson. William George Valentin.
Heated air-engines - - - - -	2633	11th Oct. 1866	Henry Messer.
Improvements in furnaces and in constructing and actuating the moveable fire bars of furnaces -	2667	16th Oct. 1866	John Griffiths. John Beard.
Improved fixing of draught apparatuses and their respective supports on all kinds of gas-burners, and improved gas-burners and draught apparatuses in connection with that.	2679	17th Oct. 1866	Julius Brönner.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places.	2744	24th Oct. 1866	Joseph Watts.
Lamp glasses or chimneys - - - - (*Communicated by Joseph Lallemand and Godefroi Auguste Guillaume Wagener.*)	2823	31st Oct. 1866	William Clark.
Lamps - - - - - - (*Communicated by Aaron Calhoun Vaughan and Robert Wallace Park.*)	2828	1st Nov. 1866	John Henry Johnson.
Improvements in heating, applicable to steam-boilers' furnaces and other heating apparatus.	2848	3rd Nov. 1866	Francis Alton Calvert.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.
An improved combination of apparatus fitting within every sort of chimney, and preventing any smoke being driven back into apartments. (*Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.*)	2889	7th Nov. 1866	William Edward Gedge.
Improvements in furnaces for burning or consuming smoke, more especially applicable to the furnaces of boilers.	2907	8th Nov. 1866	John James Bagshawe.
A new or improved spring regulator applicable to various industrial purposes, also applicable as a pressure gauge. (*regulators of draft.*)	2976	14th Nov. 1866	Julien François Belleville.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels. (*blowing furnaces, forges, &c.*)	3139	29th Nov. 1866	Edward Hughes.
Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in the furnaces of steam-boilers, which improvements may also be applied to other furnaces - - - - -	3197	5th Dec. 1866	Thomas Bridges. Joshua Bigwood.
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.
Treatment of ores of metals of which the sulphates are soluble in water - - - - -	3212	6th Dec. 1866	Paul Emile de Wissocq. Count Louis Krasenski.
Carburetters - - - - - (*Communicated by Francis Stebbins Pease.*)	3308	15th Dec. 1866	William Clark.
Effecting the combustion of substances in a pulverulent state. (*Communicated by Aimé Victor Olivier.*)	3354	20th Dec. 1866	William Edward Newton.
Apparatus for producing a draught in furnaces and for purifying the smoke therefrom. (*Communicated by Clande Moret and Felix Raux.*)	3371	21st Dec. 1866	William Clark.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces. (*preventing down draft.*)	3373	22nd Dec. 1866	Joseph Sloper.
Water tuyeres - - - - - -	3375	22nd Dec. 1866	Francis Northall. Richard Turnley.
Apparatus connected with steam-boilers, for regulating the evaporating power thereof and to obtain greater safety in their use - - - (*regulating draft in flue.*)	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
XI.—Supplying Air in Cleansing, Thrashing and Dressing Grain and Seeds.			
Improvements in drying and cleaning grain and in apparatus to be used for these purposes.	109	12th Jan. 1866	Robert Twiss Sutton.
Certain improvements in the construction of fans or blowers. (*Communicated by George Leach.*)	791	17th March 1866	Henry Bernoulli Barlow.
Machinery for hulling and cleaning coffee and other berries or seeds. (*Communicated by William Van Vleek Lidgerwood.*)	2242	30th Aug. 1866	William Edward Newton.
Thrashing machines - - - -	2348	12th Sept. 1866	John Davey.
Machinery or apparatus for drying or otherwise treating grain and other substances.	2376	15th Sept. 1866	William Creasy.
An improved mode of and apparatus for drying corn and other agricultural produce, in the straw.	2486	26th Sept. 1866	John Yeldham Betts.
Improvements in apparatus for drying hay and other cut crops, also in apparatus for raising or elevating the same. (*forcing hot air into the crop.*)	3036	19th Nov. 1866	William Alfred Gibbs.
Improved apparatus applied to millstones for grinding wheat and other grain. (*Communicated by Pierre Baillargeon.*)	3384	22nd Dec. 1866	William Edward Gedge.
XII.—Admitting, Forcing and Exhausting Air for manufacturing and other purposes; Air-pumps, Bellows, Fans and other Blowers; Forcing Gas through melted Metal, &c.			
Distillation - - - - - (*Communicated by Orazio Lugo.*)	31	4th Jan. 1866	William Edward Newton.
Apparatus and process for distilling oils and other liquids. (*exhausting air from the stills, &c.*) (*Communicated by James Johnston and John Davis.*)	70	9th Jan. 1866	James Marius Macrum.
Means or apparatus for condensing steam and other vapours, and for refrigerating fluids.	115	13th Jan. 1866	Norman Willis Wheeler.
Means of preserving timber from decay - - (*Communicated by George Palmer Ball.*)	124	13th Jan. 1866	Alexander Prince.
Improvements in the means or method of preserving in a fresh condition animal and vegetable substances, and in the apparatus to be employed therein.	138	15th Jan. 1866	Don Francisco Lecocq.
A new or improved force pump or garden engine -	198	22nd Jan. 1866	Charles Wyatt Orford.
Mode of and apparatus for compressing air or aëriform fluids, for the generation of motive-power and other purposes. (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Machinery for crushing quartz, ores and other substances. (*Communicated by Abraham Karnes.*)	275	27th Jan. 1866	August Bryant Childs.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Blowing or blast engines - - - - -	383	6th Feb. 1866	Robert Gatley.
Pneumatic railways - - - - -	376	7th Feb. 1866	Joseph Alexander Maxwell.
Vacuum apparatus employed for the cure or relief of inflammatory diseases.	414	10th Feb. 1866	Victor Theodore Junod.
Improvements in or applicable to machinery or apparatus for spinning and doubling fibrous substances, parts of which improvements are also applicable to other purposes. (*ventilating the caps.*)	448	13th Feb. 1866	John Townsend.
Looms for weaving. - - - - - (*working by compressed air.*)	509	17th Feb. 1866	Henry Lea.
Improvements in the manufacture of peat fuel and in the machinery employed therein.	545	22nd Feb. 1866	John Dickinson Brunton.
Manufacturing iron and steel and the alloyage of metals, together with preparing ores for the same - - - - - - - - - - (*in vacuo.*)	554	23rd Feb. 1866	Cyrille Jean Caumon (known as John Absterdam.)
Engines and apparatus for obtaining motive-power and for using the foul air in mines as fuel. (*obtaining vacuum.*)	557	23rd Feb. 1866	James Parker.
Pump buckets for lifting water, air or other fluids -	558	23rd Feb. 1866	Jacob Goodfellow.
Means and apparatus for producing and applying galvanic currents.	582	24th Feb. 1866	Isac Louis Pulvermacher.
An improved process of and apparatus for distilling petroleum and other liquid substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Loorein, Henry Rawle and Levi Spaulding Fales.*)	606	27th Feb. 1866	William Edward Newton.
Improvements and new applications in the manufacture of beer and alcoholic liquids. (*Communicated by Monsieur Charles Tellier.*)	615	28th Feb. 1866	Hector Auguste Dufrene.
Apparatus employed in producing illuminating gas from inflammable and volatile liquids.	669	5th March 1866	Thomas Clayton.
An improved mode of and apparatus for working air-engines. (*expanding air.*) (*Communicated by John Bowman Atwater.*)	684	6th March 1866	Alfred Vincent Newton.
Funnels - - - - - - (*Communicated by Marin Chavernot.*)	743	12th March 1866	Henri Adrien Bonneville.
Certain improvements in the construction of fans or blowers. (*Communicated by George Leach.*)	791	17th March 1866	Henry Bernoulli Barlow.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	896	27th March 1866	Charles Thieme Liernur.
Improvements in hydrostatic presses and in the mode or method of working the same - -	958	4th April 1866	Alfred Augustus Hely. John Marshall.
Looms for weaving - - - - -	1067	16th April 1866	Charles Richardson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Increasing the expansive power of steam	1184	27th April 1866	Joseph Taylor.
Looms for weaving	1222	1st May 1866	Henry Lea.
Means and apparatus for reducing metallic oxides. (*Communicated by Jacob Reese.*)	1223	1st May 1866	Charles Denton Abel.
Method of and apparatus for pickling vegetables	1254	3rd May 1866	Henry Arthur Manfield.
Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (*Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.*)	1282	5th May 1866	George Davies.
Rotary blowers (*Communicated by Francis Marion Roots and Philander Highley Roots.*)	1333	9th May 1866	William Edward Newton.
Improvements in elevating and forcing water and other fluids, and in the machinery or apparatus connected therewith.	1346	10th May 1866	Julian Bernard.
Improved apparatus for manufacturing illuminating gas. (*Communicated by Levi Stevens and Norman Carmi Munson.*)	1348	10th May 1866	Alfred Vincent Newton.
An improved rotary engine to be used for pumping fluids or gases, or as a motive-power. (*gas exhauster.*)	1402	17th May 1866	John Beale.
A new method of obtaining motive-power, and the apparatus employed therein.	1422	19th May 1866	Matthew Semple.
Certain improvements in the treatment of slags, ores and compounds of tin.	1442	22nd May 1866	Joseph Jean Marcais.
Improvements in machinery for preparing and cleaning flax, tow, hemp, cotton, shoddy and other materials employed in textile manufactures and in the manufacture of paper.	1444	23rd May 1866	William Rowan.
Improvements in the construction of sound-boards and in the governing apparatus of the bellows for organs, harmoniums and other similar wind instruments.	1476	28th May 1866	George Green.
Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps	1516	31st May 1866	Edward Taylor Bellhouse. William John Dorning.
Improvements in the method of burning coals (whether large or small coals), coal dust, coke dust, charcoal, wood and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.	1594	12th June 1866	Thomas Joseph Leigh.
Coffins	1612	13th June 1866	John Cyrus Cole.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets	1700	26th June 1866	William Buckley. Levi Smith.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Cooling worts and other liquids	1834	12th July 1866	Martyn John Roberts.
Apparatus for compressing air by means of water	1837	13th July 1866	Charles Ferdinand Dietrich.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.— *continued.*			
Improvements in pneumatic railways and in carriages used therein.	1844	13th July 1866	Thomas Webster Rammell.
An improved mode of preventing the heating and fouling of guns.	1852	14th July 1866	Wilson Ager.
Looms for weaving - - - -	1931	25th July 1866	Henry Lea. Thomas Lane.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*in vacuo.*) (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
Manufacture of oxalic acid - - -	1969	31st July 1866	Frank Clarke Hills.
Looms for weaving - - - -	2186	25th Aug. 1866	Charles Richardson.
Combing wool and other fibre - - - (*Communicated by Cullen Whipple and Elisha Johnson.*)	2190	25th Aug. 1866	George Tomlinson Bousfield.
Churns - - - - - - - (*Communicated by Sylvester Franklin Schoonmaker.*)	2198	25th Aug. 1866	George Haseltine.
The elastic tubular india-rubber air chambered pannels.	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Improvements in smelting metallic ores, and in furnaces to be employed for that purpose.	2413	20th Sept. 1866	Charles William Siemens.
An improved process for preserving milk, and apparatus connected therewith.	2478	26th Sept. 1866	Thomas Amey.
An improvement in the process of distilling petroleum and other oils. (*Communicated by Orazio Lugo, and Theodore Otto Ludwig Schrader.*)	2496	27th Sept. 1866	Alfred Vincent Newton.
A new or improved self-feeding cotton gin -	2501	27th Sept. 1866	Jules Alfred Chaufourier.
Boilers and boiler furnaces - - -	2546	3rd Oct. 1866	Henry Fisher.
Manufacture of steel - - - -	2568	5th Oct. 1866	William George Valentin. George Henry Benson.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Improvements in the manufacture of iron and steel, and in the apparatus employed therein - -	2616	9th Oct. 1866	George Henry Benson. William George Valentin.
Provision safes - - - - -	2632	11th Oct. 1866	William Watson.
Distilling alcoholic spirits - - - -	2681	17th Oct. 1866	John Slessor.
Process of distilling petroleum and other oils or substances. (*Communicated by Orazio Lugo and Theodore Otto Ludwig Schrader.*)	2685	17th Oct. 1866	Alfred Vincent Newton.
Sugar refining - - - - -	2773	26th Oct. 1866	John Wagener. George Jordan Firmin.
Improvements in the treatment and preservation of grain, pulse, seeds and flour or meal, and in the apparatus or means employed therein. (*Communicated by Wilhelm Ramann.*)	2798	30th Oct. 1866	John Henry Johnson.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut.	2808	30th Oct. 1866	Henry Martyn Nicholls.
Pneumatic signal apparatus or means for giving alarms in case of fire, or for indicating variations of temperature for other useful purposes.	2818	31st Oct. 1866	John Scott.
An improved vacuum air-engine - - - (*Communicated by John Robertson Cameron.*)	2824	31st Oct. 1866	William Edward Newton.
Pumps and pump air vessels - - -	2842	2nd Nov. 1866	Stephen Holman.
Apparatus for the production, distillation and refining of hydro-carbon and other oils from shale, cannel, coal, peat, lignite or other bituminous minerals.	2847	3rd Nov. 1866	Josiah Harris.
Lining or 'fettling' for puddling furnaces and containing vessels in which pig or crude iron is converted into wrought iron or steel.	2857	3rd Nov. 1866	John Player.
Means for operating on air or aëriform fluids by hydro-carbons, for purposes of illumination.	2873	6th Nov. 1866	Nathaniel Fortescue Taylor.
Improvements in finishing woven fabrics and in the machinery to be employed therefor.	2896	7th Nov. 1866	John Erskine Brown.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*introducing acid vapours.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Preserving corn or other grain, beans or seeds - (*excluding air.*) (*Communicated by Nicolas Valentin Haussman.*)	3062	21st Nov. 1866	John Barker.
Means and apparatus employed for conveying telegraphic despatches, letters and other light articles, through tubes. (*pneumatic tubes.*) (*Partly communicated by Dr. Werner Siemens.*)	3090	24th Nov. 1866	Charles William Siemens.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels.	3139	29th Nov. 1866	Edward Hughes.
Certain improvements in the manufacture of iron and in the means employed for effecting the same.	3189	4th Dec. 1866	William Haden Richardson.
Looms for weaving - - - -	3190	4th Dec. 1866	Edward Louis Paraire.
Means of and apparatus for separating substances of different specific gravities.	3205	5th May 1866	Thomas Jonas Chubb.
Preparation and application of certain fatty bodies (*Communicated by Matthias Paraf-Javal and Eugene Paraf-Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
Improved arrangements and apparatus for removing or transferring tar or similar materials from one place or receptacle to another.	3349	20th Dec. 1866	Edward Dorsett.
Screw valves - - - - - (*for admitting air in life preservers.*) (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
IV.—Ventilation; Supplying and Purifying Air for Buildings, Mines, Ships, Carriages, &c.			
Ventilators and mirrors for hats and other coverings for the head.	2	1st Jan. 1866	Joseph Boonham Croxall.
Combination of chemical matters and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*filtering and purifying polluted air.*)	169	18th Jan. 1866	William Hibbert
A new or improved instrument or apparatus for giving motion to hand and other fans.	174	19th Jan. 1866	Alfred Bennett.
Blowing or blast engines - - - - - (*for ventilating mines.*)	363	6th Feb. 1866	Robert Gatley.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes. (*for purifying hospitals, rooms, &c.*)	642	3rd March 1866	Victor Larnaudés.
Cooling bacon-curing rooms or chambers -	737	10th March 1866	Robert Andrew Boyd.
Arranging conduits or channels for the reception of gas, water and other mains tubes or pipes, and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*purifying air.*)	921	31st March 1866	James Davis.
Construction and arrangement of apparatus and material for effecting the deodorizing of noxious gases arising from sewers and drains, and for the more effectual ventilation of such sewers and drains.	941	2nd April 1866	Edward Brooke the younger.
Means or apparatus for effecting the ventilation of rooms and other places.	1182	27th April 1866	Edward Holden.
Ventilators for windows and other like openings -	1190	27th April 1866	David Blair White.
Construction of furnaces or fire-places for economizing the fuel employed for warming, heating and ventilating buildings.	1252	2nd May 1866	David Urquhart.
Mode of and means for promoting ventilation - (*Communicated by Henry Albert Gouge.*)	1384	15th May 1866	George Haseltine.
Improvements in greenhouses and specially relating to the fixings, fittings, ventilation and shading of the same.	1399	17th May 1866	Thomas Hungate Preston Dennis.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel - - - - - - -	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AIR SUPPLYING, &c.—*continued.*			
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes - - - - (*ventilating ships, tunnels, &c.*)	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Apparatus for raising aëriform and other fluids - (*Communicated by Jeremiah William Foard.*)	1997	2nd Aug. 1866	George Campbell.
A new or improved apparatus or instrument for facilitating the ascertaining the temperature of hay, corn, haulm or seed ricks, stacks, mows or heaps, also applicable for ventilating the said ricks, stacks, mows or heaps, and for extracting samples from the interior thereof.	2029	7th Aug. 1866	Edwin Lywood.
An improved method of or apparatus for ventilating dwelling houses or other buildings.	2206	27th Aug. 1866	The Reverend Thomas Davis.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, timepieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods. (*or ventilating rooms.*)	2416	20th Sept. 1866	Andrew Barclay Walker.
Improvements in drying and ventilating corn and other agricultural produce, and in apparatus therefor.	2433	21st Sept. 1866	George Dyson.
Construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hot-houses and drying houses.	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Building ships and vessels of war - - - -	2676	16th Oct. 1866	Robert Napier.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*using heated air for ventilation.*)	2744	24th Oct. 1866	Joseph Watts.
Certain improvements in the ventilation of hats or other coverings for the head.	2787	29th Oct. 1866	James Gee.
Reflectors and ventilators in connection with gas and other lights.	2841	2nd Nov. 1866	George Watson.
An improved ventilator - - - - -	2915	9th Nov. 1866	John Thomas Kershaw.
An improved apparatus for pumping or ventilating (*Communicated by Paschal Joseph Hognoul.*)	2927	10th Nov. 1866	Henri Adrien Bonneville.
A new or improved artificial incubator - - (*mercurial ventilator.*)	3057	21st Nov. 1866	John Brindley.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels. (*ventilating mines.*)	3139	29th Nov. 1866	Edward Hughes.
Improvements in war ships, forts, guns, and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces.	3373	22nd Dec. 1866	Joseph Sloper.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ALKALIES; ALKALINE AND EARTHY SALTS, SALTS OF ALUMINA; BARYTA, IODINE AND COMPOUNDS.			
Mode of and apparatus for extracting liquor from macerated fibres employed in the manufacture of paper. (*obtaining alkaline residuum.*)	69	9th Jan. 1866	William Anderson.
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*to obtain alum, alkaline silicates, &c.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Treatment of certain products obtained in the refining of petroleum and of other hydro-carbon oils. (*obtaining alkaline salts.*)	553	23rd Feb. 1866	John Fordred.
A new process for obtaining soda from common salt.	627	1st March 1866	Walter Weldon.
Manufacture of soda from common salt - -	628	1st March 1866	Walter Weldon.
Manufacture of soda from common salt - -	629	1st March 1866	Walter Weldon.
Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith.	812	19th March 1866	Thomas Routledge. Thomas Richardson. William Henry Richardson.
An improved mode of treating waste liquors for the dissipating or utilizing of the same. (*alkaline liquors.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
An improvement in treating bones and in the manufacture of the products thereof. (*obtaining superphosphate of lime.*)	915	29th March 1866	John Cowdery Martin.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures.	922	31st March 1866	James Davis.
Treating lucern root for paper making and weaving purposes, as well as in abstracting soda salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
Separating sulphur from soda waste - -	1016	9th April 1866	Panajota Wilhelm Hofmann, Ph.D.
Improvements in the process of desulphuration and in the apparatus employed for such process. (*Communicated by Amédée François Rémond.*)	1017	9th April 1866	George Davies.
Manufacture of carbonates and bicarbonates of soda and potash.	1108	20th April 1866	George Lunge.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses. (*obtaining ammoniacal salts.*)	1163	25th April 1866	George Edward Noone.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ALKALIES, &c.—*continued.*			
Furnaces and apparatus for separating heated gases, fumes or vapours from each other and from solid or liquid bodies - - - - - (*producing sulphate of soda.*)	1173	26th April 1866	William Edmond Adolf Gurlt.
Apparatus for effecting a solution of lime for the purpose of softening hard water.	1180	27th April 1866	Thomas William Tobin.
Improvements in the separation of certain metals from their ores, and in the production of sulphide of ammonium to be used in the process, which sulphide is also applicable to other purposes for which that salt is required.	1256	3rd May 1866	Peter Spence.
Improvements in the production of sulphide of sodium, and in the treatment thereof for the manufacture of soda.	1355	11th May 1866	Walter Weldon.
The purifying of ammoniacal liquor by an improved process, and the application of such purified ammoniacal liquor to the purifying of coal gas.	1615	14th June 1866	George Dunbar Malam.
Obtaining alkaline permanganates - - - (*Communicated by Cyprien Marie Tessié du Motay and Charles Raphael Marechal, junr.*)	1726	28th June 1866	Clinton Edgcumbe Brooman.
Improvements in the preparation of soluble alkaline silicates to render them suitable for being used for preserving stone, wood and other materials, and for manufacturing artificial stone and for other purposes.	1859	16th July 1866	Léon Mignot.
Improvements in the manufacture of certain alkaloids derived from aniline and its homologues, and in their transformation into coloring matters suitable for dyeing and printing. (*Communicated by Alcide Poirrier and Charles Chappat.*)	1912	23rd July 1866	George Tomlinson Bousfield.
Manufacture of sulphate of soda and sulphate of potash. (*Communicated by Paul Rémond.*)	1917	24th July 1866	George Davies.
Preparation of bodies in which nitrogen is substituted for hydrogen - - - - -	1956	28th July 1866	Peter Griess. Heinrich Caro.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Hadyn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
Production of sal-ammoniac in a commercial form -	2043	8th Aug. 1866	Peter Spence.
Making caustic soda from common salt or chloride of sodium, by the action of lead or its oxide, and afterwards recovering the lead as oxide or otherwise, for use again in making caustic soda from common salt.	2077	14th Aug. 1866	Samuel Rowbotham.
An improved method of treating lime-stone and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilising the substances to the various purposes of the builder.	2230	29th Aug. 1866	James Davis.
Extraction of iodine and bromine from kelp -	2273	4th Sept. 1866	Alfred Paraf. James Alfred Wankyn.
Manufacture or production of ammonia, baryta and strontia.	2362	14th Sept. 1866	George Robinson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ALKALIES, &c.—*continued.*			
The production and application of an imponderable fluid, together with the apparatus or means employed therein. (*from carbon and azote.*) (*Communicated by Martin Ziegler.*)	2536	3rd Oct. 1866	Clinton Edgcumbe Brooman.
Separating sulphur from soda waste - - (*Communicated by Panajota Wilhelm Hofmann.*)	2563	8th Oct. 1866	George Tomlinson Bousfield.
Improvements in and in apparatus for evaporating or recovering lees. (*and rendering alkali caustic.*)	2671	16th Oct. 1866	Alexander Swan.
Manufacture of caustic soda - - -	2691	18th Oct. 1866	Alexandre Raymond François Nazaire Darbel.
Furnaces for the manufacture of alkali - -	2749	24th Oct. 1866	James Cochran Stevenson.
An improved method of decomposing chloride of sodium and other compounds, by means of steam.	2768	26th Oct. 1866	Walter Weldon.
Preparation of iodide of ethyl and of other organic iodides. (*Communicated by James Alfred Wanklyn.*)	2791	29th Oct. 1866	John Henry Johnson.
Treating waste solutions obtained from burnt cupreous pyrites. (*obtaining sulphate of soda.*)	2858	3rd Nov. 1866	Frederic Claudet.
Manufacture of soda or alkali - - -	2961	12th Nov. 1866	James Cochran Stevenson. George Thornton France.
Manufacture of carbonate of soda - - (*Communicated by Dr. Alfred Blugel.*)	3030	19th Nov. 1866	Astley Paston Price.
Manufacture of salts of soda and potash - -	3097	24th Nov. 1866	John Knowles Leather.
Manufacture of alkalies - - - -	3214	6th Dec. 1866	John Williamson.
Treatment of substances containing phosphate of lime.	3359	20th Dec. 1866	Charles Norrington.
ANCHORS, LOWERING ANCHORS.			
An improvement in the construction of anchors -	1536	2nd June 1866	Charles Theodore Julius.
Anchors - - - - - - (*Communicated by Peter Dinzey.*)	1624	14th June 1866	Adolphus Henry Linnington.
Anchors - - - - -	1949	27th July 1866	John Coope Haddan.
Ships' anchors - - - - -	2356	13th Sept. 1866	Joseph Henry Betteley.
Construction of ships' anchors - -	2379	17th Sept. 1866	James Jackson.
Ships' anchors - - - - -	2420	21st Sept. 1866	John Walter Morgan.
Anchors - - - - - -	2565	5th Oct. 1866	Denison Chauncey Pierce.
Apparatus for lowering and letting go ships' anchors.	2830	1st Nov. 1866	James Jackson.
Certain improvements in the manufacture of anchors.	2859	3rd Nov. 1866	William Bayliss.
An improvement in the construction of ships' anchors - - - - - -	2938	10th Nov. 1866	Julius Frank Caulkins. William John Armstrong.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AXLES, SHAFTS, BEARINGS, JOURNALS, AXLE-BOXES, PACKINGS FOR AXLES; LUBRICATING AXLES, &c.			
Manufacture of toothed wheels for gearing shafts, axles and spindles.	95	11th Jan. 1866	Robert Mathers.
Improved means of lubricating the spindles of cap and cup frames employed in spinning and twisting fibrous substances, applicable also for lubricating other frictional surfaces of machinery - - - - - -	160	17th Jan. 1866	Edmund Feather. Thomas Feather. John Luty.
Machinery for making moulds for casting metals - (*axle-boxes.*)	196	20th Jan. 1866	William Thomas, the younger.
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles. (*bearing springs.*)	229	24th Jan. 1866	James William Evans.
Machinery for crushing and pulverizing ores and other hard substances. (*adjustable bearings.*)	241	24th Jan. 1866	James Jones.
Improvements in the boxes or bearings of axles of railway and other similar carriages, and in the method of or arrangements for lubricating such axles. (*Communicated by Wilhelm Basson and Ferdinand Lüdecke.*)	253	25th Jan. 1866	Francis Wise.
Locomotive engines designed for ascending steep inclines. (*axles.*)	284	29th Jan. 1866	Alexander Chaplin.
Axle-boxes for railway carriages - - - -	362	6th Feb. 1866	Eduard Adolph Hermann Bentner.
Lubricating the axles and bearings of railway rolling stock and other machinery. (*Communicated by François Haeck.*)	365	6th Feb. 1866	Thomas James Smith.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*axles.*)	369	7th Feb. 1866	Frank Scott.
Manufacture of axles for railway carriages - - (*Communicated by Alfred Motteau.*)	374	7th Feb. 1866	Alexander Horace Brandon.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - - (*moveable bearings.*)	417	10th Feb. 1866	John Binns. William Binns.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - - - (*shafting.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.
An improved metallic stuffing box - - - (*or packing.*)	715	5th March 1866	Victor Duterne.
A new compound applicable to the lining or covering of bearings, steps, axle boxes, journals and other frictional parts of machinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.	812	7th March 1866	Charles Stanley Osborne.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AXLES, &c.—*continued.*			
Improvements in lubricating the journals of shafts, which said improvements are also applicable to the lubrication of the bearings of axles used in other machinery - - - -	858	23rd March 1866	William Whittaker. William Lowe.
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies - - - - -	901	27th March 1866	William Deakin. John Bagnall Johnson.
Improvements in anti-friction bearings applicable to running shafts and axletrees of machines and vehicles of all descriptions.	989	6th April 1866	Antoine Baron de Gablentz.
Axles and axle-boxes for carts, carriages and other conveyances running upon wheels.	1094	18th April 1866	William Young Edwards.
Improvements in or applicable to carriages - (*Communicated by Isaac Merritt Singer.*)	1215	30th April 1866	George Davies.
Steps for the spindles of spinning frames - - (*Communicated by Thomas Marsh.*)	1279	4th May 1866	George Tomlinson Bousfield.
Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearings" of any vertical shafts. (*Communicated by Thomas Marsh.*)	1281	5th May 1866	James Marsh.
Axle boxes and bearings for the journals of railway carriages.	1312	8th May 1866	Francis Wise.
Axles for railway and other carriages - -	1377	15th May 1866	James Edwin Phillips.
Improvements in preparing lubricating compounds and in lubricating the journals and bearings of machinery.	1432	21st May 1866	Alexander Bewicke Blackburn.
An improved composition for journal boxes or bearings. (*Communicated by William Kinnear.*)	1485	28th May 1866	John Henry Johnson.
An improved composition for journal boxes or bearings. (*Communicated by George Myers and George Harper.*)	1578	8th June 1866	William Edward Newton.
Metallic packing for stuffing boxes and other obturators.	1668	22nd June 1866	Charles Alphonse Dufour.
Machinery for turning, shaping and cutting metal- (*journals of railway axles.*)	1677	23rd June 1866	Thomas Dunn.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances. (*bearings.*)	1687	25th June 1866	Edward Gerrard Fitton.
Improved modes of applying packing of elastic or flexible materials to axletrees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.	1699	26th June 1866	Charles Peachey Holliss.
Locomotive engines and tenders - - (*bearings.*) (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
Machinery or apparatus for grinding and polishing circular saws and other articles. (*yielding bearings.*)	1812	11th July 1866	Edward M'Nally.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
AXLES, &c.—*continued.*			
Improved means and appliances for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - (*hollow axles.*)	2006	3rd Aug. 1866	William Deakin. John Bagnall Johnson.
Steps or foot bearings for spindles - - (*Communicated by Thomas Marsh and David Fales.*)	2027	6th Aug. 1866	William Robert Lake.
Improvements in railway breaks, parts of which improvements are applicable as shaft couplings. (*Communicated by Victor Amedée Gellée.*)	2219	28th Aug. 1866	John Henry Johnson.
An improved carriage axle for common roads, as also the clip for uniting the spring or springs to the same - - - - - -	2226	29th Aug. 1866	Joseph Richards. Robert Grindle.
Certain improvements in the method of lubricating vertical spindles or shafts, and in the apparatus for effecting the same. (*Communicated by Thomas Marsh.*)	2421	21st Sept. 1866	James Marsh.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*axles or shafts.*)	2522	29th Sept. 1866	Joseph Whitworth.
An improved mode of forming collars on metallic axles and other articles. (*Communicated by William Allen.*)	2561	4th Oct. 1866	William Edward Newton.
Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery.	2566	5th Oct. 1866	John Cole Chapman.
Improved bearings for shafts and axles - -	2697	18th Oct. 1866	William Eades. William Thomas Eades.
Lubricators - - - - - - (*for large shafts.*)	2763	26th Oct. 1866	John Storer.
Axle-boxes - - - - - - - (*Communicated by Joseph Green Cooke.*)	2912	8th Nov. 1866	James Samuel Cooke.
An improved method of lubricating axle-trees of fixed engines.	2925	10th Nov. 1866	Auguste Gobert.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*casting shafts.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
A new composition applicable to rollers for calico printing and to other purposes. (*to steps and bearings.*)	2955	12th Nov. 1866	George Frederick Freeman.
Arranging and driving the shafting of "loom sheds."	3096	24th Nov. 1866	William Beckett Johnson.
Certain improvements in apparatus or mechanism for preparing and spinning cotton or other fibrous substances. (*lubricating bolster bearings.*)	3102	26th Nov. 1866	John Buckley.
Improvements in mowing and reaping machines, partly applicable to carriages and other wheeled vehicles. (*hollow axle.*) (*Communicated by John Gould Perry.*) For bearing springs *see* "SPRINGS."	3186	4th Dec. 1866	George Haseltine.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Bags, Baskets, Sacks, Holders and Fastenings.			
Improvements in packing bottles and in the construction of hampers to be used therefor.	205	22nd Jan. 1866	James Ritchie Butchart.
Machinery for the manufacture of paper bags - (*Communicated by Benjamin Spencer Binney.*)	223	23rd Jan. 1866	William Clark.
Travelling or fitted dressing bags - - -	329	2nd Feb. 1866	Henry Mitchell.
Improved machinery for the manufacture of bags and envelopes made of paper or other fibrous materials, or woven or textile fabrics, either separately or combined.	848	22nd March 1866	Henry Rankin.
A combined arm chair and travelling bag - (*Communicated by Léandre Paul Quétineau.*)	892	27th March 1866	William Edward Gedge.
Fastenings for trunks, boxes, bags, valises and other like articles. (*Communicated by William Shankland Paddock.*)	1011	9th April 1866	William Clark.
Certain descriptions of locks - - - (*for bags.*)	1056	14th April 1866	Thomas Cooper the younger.
Machinery or apparatus for making envelopes and paper bags. (*Communicated by Robert Parks and John Armstrong.*)	1554	5th June 1866	John Henry Johnson.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios, and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Travelling bags, valises and trunks - - - (*Communicated by Zoheth Sherman Durfee.*)	1575	8th June 1866	Charles Denton Abel.
An improved spring suspension for horses' nose-bags.	1818	11th June 1866	François Dégravel.
An improved travelling bag - - -	1858	16th July 1866	Edward Heusser.
Certain improvements in machinery or apparatus for manufacturing paper bags - - -	1965	31st July 1866	Thomas Bibby. James Bibby.
Improved machinery for making envelopes and paper and other bags.	2049	9th Aug. 1866	James Gathercole.
Improved machinery or apparatus for the manufacture of paper bags - - - - -	2129	18th Aug. 1866	John Sanders Blockey. James Hervey.
Articles consisting of muffs combined with bags, pockets or similar receptacles - - -	2232	29th Aug. 1866	Josef Loebl. Ignac Pick.
Travelling or fitted dressing bags - -	2354	13th Sept. 1866	Richard Robinson.
Means of securing pocket books and other portable articles on the person. (*wallets.*) (*Communicated by Theodore Neuscheller.*)	2504	27th Sept. 1866	Friedrich Wilhelm Constantin Dromtra.
Fastenings for purses, cigar cases, travelling bags and other similar articles. (*Communicated by Joseph Schoenfeld.*)	2579	6th Oct. 1866	William Clark.
Improvements in the construction of trunks, portmanteaus and boxes, parts of which improvements are also applicable to otner useful purposes. (*baskets.*)	2619	10th Oct. 1866	Michael Myers.
Fastening the mouths of corn, flour and other sacks	2760	25th Oct. 1866	William Macdonnell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BAGS, &c.—*continued.*			
Improvements in treating vegetable substances, chiefly applicable to the manufacture of paper pulp and fibres. (*suitable for making baskets.*) (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*baskets.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
An improved receptacle for tobacco - -	3229	7th Dec. 1866	William Antil Richards.
BATHS AND BASINS, BATHING APPLIANCES.			
Combination of chemical matters and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*or as baths.*)	169	18th Jan. 1866	William Hibbert.
An improved method of protecting the contact surfaces of vessels, utensils and articles of domestic use and their supports. (*basins and ewers.*)	173	19th Jan. 1866	Joseph Alfred Nicholson.
An improved mechanical valve respirator - - (*and medicated solution for baths.*)	339	3rd Feb. 1866	William Hibbert.
An improved apparatus for raising water in shower baths. (*Communicated by Henry Wilson Lee.*)	392	8th Feb. 1866	John Gilbert Avery.
A new form of partial or total baths for man or animals. (*Communicated by Major General Angelini.*)	1269	7th May 1866	Vital de Tivoli.
Improvements in water-closets, urinals, lavatories and other receivers, and also in taps for supplying liquids to the same - - -	1552	5th June 1866	Desiré Alfred Dumuis. Elmir Jean François Flicoteaux. Edward William Niblett. Manuel Leopold Jonas Lavater.
A combined bath, travelling trunk and self-rocking cradle.	2391	18th Sept. 1866	William Henry Bailey.
Water supply - - - - - - (*for baths.*)	2428	21st Sept. 1866	Robert Richardson. John Imray.
Improvements in the construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses - - -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Improvements in heating baths and in apparatus for the same.	2618	10th Oct. 1866	Lewis Wilson.
Improved apparatus for administering vapour baths and fomentations.	2631	11th Oct. 1866	Robert Henry Bollans.
An improved portable bath - - -	2635	11th Oct. 1866	Harry Jones.
A new or improved portable bath - - -	3015	17th Nov. 1866	Charles Wyatt Orford.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BATHS, &c.—*continued.*			
Screw valves - - - - - - (*for bath tubs, basins, &c.*) (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.
An improved apparatus for heating apartments, conservatories and baths.	3438	31st Dec. 1866	George Shrewsbury.
BAYONETS AND SABRES.			
Improvements in breech-loading and other fire-arms and in bayonets for the same. (*Communicated by Charles Howard.*)	2159	23rd Aug. 1866	Stephen Amos Main.
Breech-loading fire-arms and bayonets for the same	2642	12th Oct. 1866	Andrew Wyley.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*sabres.*) (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
BELLS; RINGING BELLS.			
Certain improvements in the method of and means for communicating with and transmitting power from place to place. (*ringing bells.*)	521	20th Feb. 1866	Alfred Moore.
Improvements in train intercommunication, parts of the invention being applicable to other purposes - - - - - - -	966	5th April 1866	Samuel Manley Martin. Samuel Alfred Varley.
Telegraphic signalling apparatus - - -	1050	13th April 1866	Thomas Brittan.
Improvements in the machinery of chimes, applicable also to organs.	2516	29th Sept. 1866	Daniel Imhof.
Call bells - - - - - - -	2852	3rd Nov. 1866	Edmund Tonks.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness. (*bells.*)	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
Certain improvements in facilitating communication between passengers and guard on railways.	3287	14th Dec. 1866	Albert Whitford Hosking.
Means and apparatus for generating electricity - (*for ringing bells.*)	3394	24th Dec. 1866	Cornelius Varley. Samuel Alfred Varley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BELTS, BRACES, GIRTHS AND BANDS.			
Driving belts or bands - - - - -	583	24th Feb. 1866	Frederick Lamb Hancock. Charles Lamb Hancock.
Buckles or fastenings for braces, belts and bands -	1602	13th June 1866	John Holloway.
Certain improvements in fastenings for articles of dress - - - - - - - (*belt clasps.*)	1690	25th June 1866	John Reading. Samuel Alfred Reading. George Edward Reading. Frederick Francis Reading.
Construction of buckles or fastenings for braces and other articles. (*Communicated by Charles Alfred Tordery.*)	2057	9th Aug. 1866	William Edward Gedge.
Manufacture of elastic and other fabrics - - (*brace webbing.*)	2100	15th Aug. 1866	William Shaw. James Connell.
Clips or fastenings for the bands of purses and pocket books, and for other bands, and for other like purposes. (*fastening dress belts.*)	2373	15th Sept. 1866	Thomas Newey.
A safety belt or apparatus for use in travelling, to prevent injuries from concussions or otherwise.	2510	28th Sept. 1866	Charles Fox.
Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.	2892	7th Nov. 1866	James Clemente Newey.
Braces - - - - - - -	3020	17th Nov. 1866	Isaac Evans.
BLEACHING AND DECOLOURISING.			
Bleaching vegetable and animal fibres and tissues - (*Communicated by Charles Raphael Maréchal and Cyprien Marie Tessie du Motay.*)	84	10th Jan. 1866	Richard Archibald Brooman.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
An improvement in the treatment of rami or rhea fibre, commonly called and known as China or India grasses - - - - - - (*for bleaching.*)	357	6th Feb. 1866	Peter Augustin Godefroy. John William Mott.
Bleaching, dyeing, printing and sizing cotton and other yarns or threads.	468	14th Feb. 1866	James Barlow.
An improved process of bleaching - - - (*Communicated by John Jordan Eckel, Isaac Smith Schuyler and James Waring Gillies.*)	672	5th March 1866	Alfred Vincent Newton.
Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state - - -	824	20th March 1866	Thomas Nesham Kirkham. Vernon Francis Enson. Hiram Brook.
Bleaching books, engravings, paper, cotton and other similar articles and substances. (*Communicated by Justin Henry David.*)	925	31st March 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BLEACHING, &c.—*continued.*			
Treatment of sugar - - - - - - (*Communicated by François Joseph Chauvin and Frederic Mathurin Légal the younger.*)	960	4th April 1866	John Henry Johnson.
Improved methods and apparatus for steeping, boiling, bleaching and dyeing fibrous materials.	1881	19th July 1866	William Tongue.
An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood, straw and other fibrous material, for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (*Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Colton.*)	2156	22nd Aug. 1866	George Haseltine.
Softening, disintegrating and bleaching vegetable fibres.	2236	30th Aug. 1866	James Montague Mellor.
A new method of bleaching fibres and fabrics of vegetable origin. (*Communicated by Cyprien Marié Tessié du Motay and Charles Raphael Marechal.*)	2266	3rd Sept. 1866	Clinton Edgcumbe Brooman.
Improvements applicable to the manufacture of chloride of lime or bleaching powder, and in apparatus connected therewith - - -	2467	25th Sept. 1866	William Neill the younger. Philip Smith.
Refining or decolorizing sugar and syrup - -	2645	12th Oct. 1866	Edward Beanes.
Sulphuring yarns and fabrics - - -	2656	13th Oct. 1866	John Dale. John Gallemore Dale.
Machinery for wringing yarns - - - -	2995	15th Nov. 1866	John Nichols.
Process of cleansing, purifying and bleaching various kinds of grain.	3083	23rd Nov. 1866	Robert Potter M.A.
An improvement connected with the bleaching of fibrous substances, and with the manufacture of bleaching powder, bleach liquor or sulphuric acid.	3091	24th Nov. 1866	Carl Dietrich Julius Seitz.
Preparation of bleaching materials or compounds -	3232	7th Dec. 1866	Thomas Gray.
BOBBINS AND COP-TUBES.			
Machinery for spinning and doubling - -	1112	20th April 1866	Charles Hastings. James Briggs. James Law. Hiram Mitchell.
Improvements in cop tubes and in shuttle skewers	1183	27th April 1866	James Strang.
Improvements in making cop tubes and in apparatus therefor - - - - - -	1284	4th May 1866	Henry Douglas. James Douglas.
An improvement applicable to bobbins used in preparing and spinning machinery. (*Communicated by Benjamin Wilbur.*)	1804	9th July 1866	Alfred Vincent Newton.
Tubes and skewers for cops - - -	1928	25th July 1866	James Strang.
Machinery for the manufacture of spool tubes and cartridge cases.	2213	28th Aug. 1866	John Foster the younger.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BONES, IVORY, HORN, PEARL AND SUBSTITUTES.			
Machinery for crushing and pulverizing ores and other hard substances. (*bones.*)	241	24th Jan. 1866	James Jones.
Working and treating india-rubber, gutta-percha and other similar gums. (*to imitate coral, pearl, &c.*) (*Communicated by Frank Marquard.*)	300	31st Jan. 1866	William Robert Lake.
Machinery or apparatus for reducing, pounding and softening hard or tough substances. (*bones.*)	691	7th March 1866	John Patterson.
An improvement in treating bones and in the manufacture of the products thereof.	915	29th March 1866	John Cowdery Martin.
Application of materials to surfaces for ornamental purposes. (*ornamenting ivory.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel. (*for bone boiling works.*)	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
New or improved plastic compounds applicable to various purposes where wood, horn and other like substances are now employed.	1760	2nd July 1866	Franz Fried.
Imitating mother of pearl upon various surfaces (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.
An improved apparatus for manufacturing illuminating gas and producing bone black and other valuable residuum.	2067	11th Aug. 1866	John Israel Ensley.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material such as horn, ivory, gutta-percha, wood, or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
An improved material or substance to be used instead of whalebone in the manufacture of whips, whip handles, riding and walking sticks; and such like articles.	2371	15th Sept. 1866	John Keyston.
Improvements in the manufacture of parkesine or compounds of pyroxylin, and in the production of imitations of ivory and pearl.	2709	19th Oct. 1866	Alexander Parkes.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Books, Albums, Portfolios, Book Covers, Book Slides or Holders; Book-binding.			
Protectors for watches, portemonnaies and pocket books.	123	13th Jan. 1866	Henry Gottheimer.
Improved sheets, plates or apparatus to facilitate improvement in handwriting. (*copy books.*)	170	18th Jan. 1866	James Williams.
Means and apparatus for producing and applying galvanic currents. (*applied to albums.*)	582	24th Feb. 1866	Isac Louis Pulvermacher.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*ornamenting covers of books.*)	740	10th March 1866	Philip Henry Ashberry.
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling. (*for book covers.*)	779	15th March 1866	Thomas Goulston Ghislin.
Portfolios and paper files - - - - (*Communicated by Henry Tillinghast Sisson.*)	875	24th March 1866	George Tomlinson Bousfield.
Bleaching books, engravings, paper, cotton and other similar articles and substances. (*Communicated by Justin Henry David.*)	925	31st March 1866	John Henry Johnson.
An improved system of consecutively numbering checks and "making up" or binding check books when so numbered.	988	6th April 1866	James Fraser.
Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles - -	1013	9th April 1866	William Rawlings. Wilhelmus Rest.
Guards for pocket books, watches and watch keys -	1128	21st April 1866	John Macintosh. William Boggett.
Certain improvements in mechanism or apparatus for turning over leaves either in a folded, stitched or bound state.	1336	10th May 1866	George Ashworth. Elijah Ashworth.
An improved album for exhibiting photographs and other pictures. (*Communicated by John Spooner.*)	1473	26th May 1866	Corey McFarland.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*memorandum books.*)	1582	8th June 1866	Henry Josiah Griswold.
An improved roller for window-blinds, maps, almanacks and other similar articles.	1893	21st July 1866	William Stamford Davis.
Certain improvements in binding books - -	2211	28th Aug. 1866	Léopold Delagarde.
Means or apparatus to be employed in order to facilitate the teaching of writing and drawing. (*cardboard tablet.*)	2257	3rd Sept. 1866	Richard Frost.
Clips or fastenings for the bands of purses and pocket books, and for other bands, and for other like purposes.	2373	15th Sept. 1866	Thomas Newey.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Books, &c.—*continued.*			
Improvements in "portfolios" or "cases" for holding musical publications, periodicals, manuscripts and the like matter, and in binders to be used therewith - - - -	2410	20th Sept. 1866	George Ashworth. Elija Ashworth.
Means of securing pocket books and other portable articles on the person. (*Communicated by Theodore Neuscheller.*)	2504	27th Sept. 1866	Friedrich Wilhelm Constantin Dromtra.
Fastenings for purses, cigar cases, travelling bags and other similar articles. (*portfolios.*) (*Communicated by Joseph Schoenfeld.*)	2579	6th Oct. 1866	William Clark.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - - - - - - (*albums.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*portfolios.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Improvements in shop fittings, applicable also to book shelves and other articles of furniture - (*See* "FURNITURE.")	3074	22nd Nov. 1866	George Frederick Stidolph. John Stidolph. Joseph Roberts Morley.
Fastenings for pocket books, diaries, memorandum books and other similar articles. (*Communicated by John Frederic Dubber and Carlos Bardwell.*)	3429	29th Dec. 1866	George Haseltine.
Boots, Shoes, Leggings, Skates, Cleaning Boots.			
Machinery for sewing - - - - (*for boots.*)	132	15th Jan. 1866	Albert Francis Johnson.
Manufacture of boots and shoes - - (*Communicated by George Barnes Windle.*)	246	25th Jan. 1866	John Piddington.
Improvements in finishing the soles and heels of boots and shoes, and in apparatus employed for such purposes - - - -	251	25th Jan. 1866	Thomas Marshall. Henry Cooper Pretty.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (*Communicated by Isaac Heer.*)	348	5th Feb. 1866	Charles Denton Abel.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Boots, &c.—*continued.*			
Manufacture of stiffenings for the heels of boots and shoes. (*Communicated by John Gillingham Felt.*)	397	8th Feb. 1866	Nathaniel Henry Felt.
Skates - - - - - - - -	573	24th Feb. 1866	Joseph Ingall Barber.
Improvements in screw-rivets for boot pegs and screw nails for various purposes, and in machinery for the manufacture of screw-rivets and screw nails, a part of which improvements in machinery may also be applied to other purposes.	623	1st March 1866	Alfred Christmas Andrews.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather. (*bottoms of boots and shoes.*)	746	12th March 1866	Charles Linford.
Manufacture of elastic gusset webs - - (*for boots.*)	777	15th March 1866	James Cole, Junr.
Manufacture of elastic fabrics - - - (*for boots and shoes.*)	986	6th April 1866	William Cole.
Eyeletting machines - - - (*Communicated by Charles Howard Crosby.*)	1095	18th April 1866	William Young Edwards.
Manufacture of boots and shoes - - (*Communicated by Antoine Guérin.*)	1117	20th April 1866	Edward Thomas Hughes.
Improvements in apparatus for lacing boots and shoes, gaiters and other articles of dress, and in the mode of attaching the same. (*Communicated by William Henry Shurtleff and Charles Henry Church.*)	1275	4th May 1866	John Henry Johnson.
A new system of application of pads of india-rubber or other elastic materials. (*to shoe soles.*) (*Communicated by Major General Angelini.*)	1295	7th May 1866	Vital de Tivoli.
Improved methods of attaching soles and heels to boots, shoes and other similar articles.	1480	28th May 1866	Charles Lock.
Improved methods of rendering the soles or bottoms and heels of boots and shoes more durable.	1502	29th May 1866	James Wadsworth.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Certain improvements in fastenings for articles of dress - - - - - (*for leggings, &c.*)	1690	25th June 1866	John Reading. Samuel Alfred Reading. George Edward Reading. Frederick Francis Reading.
Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving-bands and such like articles as require to be strongly united together.	1762	2nd July 1866	Thomas Cook.
Construction and arrangement of the fastenings of leggings, gaiters, antigropelos and such like articles of dress.	1773	4th July 1866	Alfred Myerns.
Improved machinery for crimping leather for boot fronts. (*Communicated by John P. Jamison.*)	1821	11th July 1866	Alfred Vincent Newton.
Machinery and apparatus for the manufacture of boots and shoes and other coverings for the feet.	1964	30th July 1866	Thomas Greenwood. William Keats.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Boots, &c—*continued.*			
A new or improved implement for the use of boot and shoe makers. (*Communicated by David Henry Barber and George Mellen Wells.*)	1995	2nd Aug. 1866	John Henry Johnson.
Manufacture of elastic and other fabrics - - (*boot gussets.*)	2100	15th Aug. 1866	William Shaw. James Connell.
Construction of apparatus for cleaning and polishing boots and shoes, such apparatus being also applicable to other purposes.	2200	27th Aug. 1866	Ephraim Lamb.
Fixing the soles and heels of boots and shoes -	2260	3rd Sept. 1866	Ephraim Lamb. Samuel Middleton.
Improved apparatus for cleaning and polishing boots, shoes and knives.	2284	5th Sept. 1866	Reginald Samuel Mordaunt Vaughan.
Construction of roller skates - - - (*Communicated by Leopold Burmeister.*)	2305	7th Sept. 1866	William Frederic Bernhard Klein.
An improvement in boots and shoes - -	2310	8th Sept. 1866	Charles Frederick Allbon.
Improvements in leather and in machines for manufacturing the same. (*Communicated by George Valentine Sheffield and James Fitch Coburn.*)	2316	8th Sept. 1866	William Clark.
Making boot legs of one piece - -	2321	10th Sept. 1866	Charles Franck de Gaudel.
An improved elastic waist for boots, shoes, slippers, clogs and sandals.	2383	17th Sept. 1866	Edward Wall.
Machinery or apparatus for cleaning and polishing boots and shoes, harness and other manufactured leather goods.	2429	21st Sept. 1866	Thomas Challinor.
Manufacture of overshoes - - -	2475	25th Sept. 1866	Augustus Henry Thurgar.
Manufacture of leather binding - - - (*for shoes.*) (*Communicated by Matthew Henry Merriam and Eugene Lindsey Norton.*)	2585	8th Oct. 1866	George Haseltine.
Cutting out of boots, shoes and gaiters of all kinds. (*Communicated by Camille Mouchonay-Sirand.*)	2600	9th Oct. 1866	William Edward Gedge.
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins. (*shoe nails.*)	2660	15th Oct. 1866	John Giles.
Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles - - -	2800	30th Oct. 1866	Henry Churchman. Frederick Braby.
Boots and shoes - - - -	2811	30th Oct. 1866	Lyman Daggett.
Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.	2892	7th Nov. 1866	James Clemente Newey.
A new and improved method of making revolving boot and shoe heels.	2916	9th Nov. 1866	Charles Douglas Norton.
Manufacture of boots and shoes - -	3008	16th Nov. 1866	James Vero.
Improved methods of rendering the soles and heels of boots, shoes and clogs more durable, and for improved modes of constructing the articles to be used for that purpose, and also for improved methods of fastening moveable heels of boots and shoes.	3137	29th Nov. 1866	James Wadsworth.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Boots, &c.—*continued.*			
An improved machine for pegging boots and shoes (*Communicated by Reuben Whitehouse Drew.*)	3237	8th Dec. 1866	George Haseltine.
An apparatus for the more expeditious and effectual attachment of skates to boots or shoes.	3312	17th Dec. 1866	Charles Mole.
Means or apparatus employed in "beading" the "uppers" of boots and shoes and other articles.	3343	20th Dec. 1866	William Chapman.
Boots and shoes - - - - (*Communicated by George Washington Tolhurst.*)	3381	22nd Dec. 1866	William Clark.
Improvements in fur-lined over boots and over shoes, the object of the invention being to keep the feet of the wearer warm whilst riding or walking or sitting.	3445	31st Dec. 1866	Henry Gottheimer.
Manufacture of elastic gussets - - - (*for boots.*)	3451	31st Dec. 1866	James Miller. James Miller, Junr.
Boring, Drilling, Rifling and Punching; Gimlets, Augers and Bracebits.			
Improvements in the manufacture of augers and in the tools or instruments to be used in such manufacture. (*Communicated by Russell Jennings.*)	32	4th Jan. 1866	William Edward Newton.
Differential screw apparatus - - - (*applicable to punches.*) (*Communicated by François Durand and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Connecting or fastening the ends of iron or other metal bands surrounding bales of cotton, wool and other dry goods. (*forming the holes.*) (*Communicated by Henry Fassman.*)	320	1st Feb. 1866	Henry Charles Lucy.
Machinery or apparatus for mortising or cutting holes or mortises in wood.	377	7th Feb. 1866	Alexander Clark.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - (*punch or cutter.*)	417	10th Feb. 1866	John Binns. William Binns.
Improvements in breech loading fire-arms and in cartridges for the same. (*rifle grooving the bore.*) (*Communicated by Hiram Berdan.*)	529	20th Feb. 1866	William Edward Newton.
Improvements in drills and in chucks for holding and operating the same and similar articles. (*Communicated by Stephen Ambrose Marse.*)	535	21st Feb. 1866	William Robert Lake.
Pin cartridges - - - - - (*Communicated by Jules Félix Gévelot.*)	592	26th Feb. 1866	William Clark.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - (*punching, piercing or perforating.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BORING, &c.—*continued.*			
Machinery or apparatus for perforating rocks to facilitate the formation of tunnels, galleries of mines and for other similar purposes. (*Communicated by Theophilus Berrens.*)	655	3rd March 1866	James Stevenson.
Holding devices for boring tools - - - (*Communicated by Cyrus Avery.*)	744	12th March 1866	Thomas Adam Mathieson.
Improvements in drill and other braces, which improvements are also applicable to drilling machines and other apparatus for boring holes.	764	14th March 1866	John Varley.
Machinery for mining and working coal, minerals, stone and other earthy matters - -	807	19th March 1866	Edward Beacher. John Gillott.
Machinery for boring rocks - - - (*Partly communicated by Fritz Abegg.*)	974	5th April 1866	Samuel Richards.
Means or apparatus employed in drilling and ornamenting metal, wood and other similar substances.	1045	13th April 1866	William John Cunningham.
Eyeletting machines - - - (*Communicated by Charles Howard Crosby.*)	1095	18th April 1866	William Young Edwards.
A new wheel pinion for riggers' driving operators - (*for boring.*)	1125	20th April 1866	Frederick Ruppert.
Machinery for making twist drills - - - (*Communicated by Andrew Reynolds Arnold.*)	1164	25th April 1866	William Clark.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key - -	1166	25th April 1866	Henry Charles Butcher.
An improved machine for the manufacture of augers, bits, drills, and like tools and articles. (*Communicated by William Watson Grier and Robert H. Boyd.*)	1466	25th May 1866	John Thomson King.
Means or apparatus for holding or setting work to be cut, planed, turned, drilled or otherwise operated upon.	1524	31st May 1866	George Radford Mather.
Drilling machines - - - - (*Communicated by Warren Lyon David Van Gelder Isaacs, Alexander M^c^Andrew and Samuel Wann.*)	1574	7th June 1866	William Edward Newton.
An improved means and apparatus for providing furrows in the surface of metals, applicable especially for cutting files and other purposes. (*making augers.*)	1596	12th June 1866	Pierre Hippolyte Limet.
Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes. (*puncking laths.*)	1706	27th June 1866	Edward Ambrose.
Improved machinery for drilling iron and other metals, also for boring wood, for tapping nuts and screwing bolts.	1729	28th June 1866	Simeon Deacon.
Machinery or apparatus for sinking shafts or pits, and driving tunnels and galleries.	1784	5th July 1866	John Dickinson Brunton.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith.
Certain improvements in apparatus used for imbibing or sucking in liquids, known as "bombillas."	1895	21st July 1866	William Bellamy.
Permanent way of railways - - -	1951	27th July 1866	William Seaton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BORING, &c.—*continued.*			
Drilling machines	2087	15th Aug. 1866	Stephen Alley.
Punching and rivetting machines	2158	23rd Aug. 1866	Ralph Hart Tweddell.
Improved apparatus for boring boiler tube heads, drilling angle holes or cutting circular grooves in metallic substances. (*Communicated by James Miller.*)	2247	31st Aug. 1866	William Edward Newton.
Machines for making eyelets (*Communicated by Thomas Garrick.*)	2250	1st Sept. 1866	George Tomlinson Bousfield.
Improvements in leather and in machines for manufacturing the same. (*Communicated by George Valentine Sheffield and James Fitch Coburn.*)	2316	8th Sept. 1866	William Clark.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*for boring wells.*) (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*for drilling stone, boring rock, &c.*) (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Machinery for manufacturing screw nuts (*drilling and tapping nut blanks.*)	2876	6th Nov. 1866	Edward Hammond Bentall.
Friction breaks and apparatus for giving motion to machinery. (*working drilling braces.*)	2881	6th Nov. 1866	Robert David Napier.
An improved chuck for holding drills and other tools. (*Communicated by Albert Beach.*)	2899	7th Nov. 1866	Charles Churchill.
Improvements in engines for boring rock and other mineral, and in frames or stands for boring engines.	2922	9th Nov. 1866	Frederick Bernard Dœring.
A new and improved sorter and a drilling machine connected therewith. (*Communicated by Jacques Lhuillier.*)	2930	10th Nov. 1866	Henri Adrien Bonneville.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*or boring.*)	2975	13th Nov. 1866	William Walker Marston.
Multiple drilling machines	2982	14th Nov. 1866	William Clapperton.
An improved combined punching and eyelet machine. (*Communicated by William Sparks Thomson.*)	3004	16th Nov. 1866	Edward Drucker.
Construction of lathes (*for boring wheel tire.*)	3034	19th Nov. 1866	Thomas Greenwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BORING, &c.—*continued.*			
Machinery for drilling rocks - - - (*Communicated by Charles Burleigh.*)	3065	22nd Nov. 1866	George Haseltine.
Machinery for drilling combs and hackles - -	3087	23rd Nov. 1866	Thomas Richards Harding. Thomas Walter Harding.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials (*drilling holes.*)	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Machinery for applying hydraulic power to mining and other purposes. (*boring rock.*)	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
Machinery for cutting, punching and shaping metals for screw nuts and like articles.	3410	28th Dec. 1866	Francis Watkins.
BOTTLES AND JARS; STOPPERS, CAPSULES AND CORKS; STOPPERING, CLOSING AND OPENING BOTTLES AND JARS; CORK SCREWS; BOTTLE-HOLDERS.			
Improvements in the manufacture of stoppers for bottles and other articles, and in machinery employed in such manufacture.	3	1st Jan. 1866	Nathan Thompson.
Flasks, bottles and other similar receptacles. - (*Communicated by William Thomas Fry.*)	60	9th Jan. 1866	Francis Wise.
Improvements in printing and in apparatus employed therein. (*printing on bottles.*)	73	9th Jan. 1866	Alfred Leighton.
A perforated cage for leech vases - - -	192	20th Jan. 1866	Joseph Bradley Shillcock.
Improvements in packing bottles and in the construction of hampers to be used therefor.	205	22nd Jan. 1866	James Ritchie Butchart.
Improvements in the construction, adaptation and application of machinery and apparatus for the manufacture of mats and envelopes of fibrous material, to cover and protect bottles and other fragile articles, and in the manufacture of such mats and envelopes.	373	7th Feb. 1866	George Clark.
Rose engines - - - - - (*for ornamenting pitchers, &c.*) (*Communicated by Anton Schwitter and Lewis Schwitter.*)	653	3rd March 1866	William Clark.
Tools for dividing wood into cylinders - - (*forming bottle stoppers.*)	654	3rd March 1866	Nathan Thompson.
Stoppering bottles - - - - -	801	17th March 1866	Charles William Standish.
Colouring capsules - - - - -	959	4th April 1866	William Betts.
Apparatus for cutting cork - - - - (*Communicated by Louis Saouvan.*)	963	4th April 1866	Michael Henry.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BOTTLES, &c.—*continued.*			
Receptacles for bottles, eggs and other fragile articles.	1027	10th April 1866	Stephen William Silver. Albert Hayward.
Apparatus for drawing off aërated liquids (*Communicated by Pierre Alcide Olivier and Alphonse Brisset.*)	1035	11th April 1866	William Clark.
Improvements in bottle stoppers and in the method of fastening the same hermetically. (*Communicated by Charles François André Pécaut*)	1110	20th April 1866	Didier Louis Nicolas-Daubisgnye. Robert Dawson Clegg.
Improvements in covering or protecting the mouths of bottles, jars and similar receptacles, and in capsules employed therein. (*Communicated by Jean Hyppolite Lamoureux and Edouard Gendrot.*)	1115	20th April 1866	John Henry Johnson.
An improved method for packing up bottles	1313	8th May 1866	Jules Becker.
Method and means of securing and discharging the contents of pipes and vessels.	1330	9th May 1866	Samuel Middleton.
Improvements in corking bottles and in the machinery or apparatus connected therewith.	1357	11th May 1866	Hugh Fraser.
Infants' feeding bottles	1409	18th May 1866	Peter Joseph Morand.
An improved apparatus for containing and dispersing or scattering liquid scents and other liquids. (*Communicated by William Trivet Fox.*)	1412	18th May 1866	Joseph Wesley Fox.
Machinery for cutting corks and bungs (*Communicated by Charles Harris.*)	1549	4th June 1866	Corey M'Farland.
Jars for preserving fruits, meats and other substances. (*Communicated by John Jay Squire.*)	1573	7th June 1866	William Edward Newton.
A new or improved bottle fountain	1652	20th June 1866	Jean Nadal.
Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (*Communicated by Antoine Cuttier.*)	1673	22nd June 1866	Charles de Grelle.
Improvements in cases for packing and transporting bottled ales and other liquors, and in the method of packing the same.	1678	23rd June 1866	Henry Gardner.
Apparatus for filling and corking bottles	1817	11th July 1866	William Thompson.
Mode of securing corks and stoppers in the necks or mouths of bottles, jars and other vessels. (*Communicated by Arthur Barbarin.*)	2007	3rd Aug. 1866	John Henry Johnson.
An improved method of and apparatus for securing or protecting corks or stoppers in bottles and other similar vessels.	2134	20th Aug. 1866	Charles Bathoe.
An improved apparatus or appliance to be used in conjunction with corks for closing bottles, jars and other similar receptacles.	2361	14th Sept. 1866	Jean Joseph Baranowski.
Improvements appertaining to bottles	2399	18th Sept. 1866	Alexander Southwood Stocker.
Improvements in the construction of bottles intended to contain malt liquors and other liquids, and in the mode of stoppering, unstoppering and drawing off the contents thereof, the said stoppers being also applicable to bottles of the ordinary kind and other vessels employed to contain liquids, fluids and gases, either separately or in combination.	2572	6th Oct. 1866	William Dennis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BOTTLES, &c.—*continued.*			
Improved machinery or apparatus for washing bottles.	2573	6th Oct. 1866	William Edwin Hickling.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles. (*bottle cases.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
An improved funnel - - (*Communicated by Emile de Fages de Latour.*)	2599	9th Oct. 1866	William Edward Gedge.
Improved pins, nails or tacks, the application of the same to certain purposes, and an apparatus to be employed in inserting the same when fixed to caps or capsules into corks. (*Communicated by Victor Palyart.*)	2706	19th Oct. 1866	Clinton Edgcumbe Brooman.
A new process of and apparatus for uncorking bottles.	2766	26th Oct. 1866	Armand Manuel.
An improved apparatus for stoppering bottles -	2833	1st Nov. 1866	Jules Becker.
Method of and apparatus for stopping or closing vessels. (*Communicated by Pierre Labat and Bassot Brothers.*)	3005	16th Nov. 1866	George Davies.
Corkscrews - - - - -	3162	1st Dec. 1866	Hyde Bateman.
An improved cap or cover to be applied for securing and labelling bottles.	3230	7th Dec. 1866	John McGlashan.
Manufacture of capsules applicable to bottles and other receptacles.	3245	8th Dec. 1866	Alexander Southwood Stocker.
Ornamenting glass - - - - (*decanters.*)	3270	13th Dec. 1866	John Robinson.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects.	3341	20th Dec. 1866	Walter Gilbey.
An improved safety bottle case - - -	3400	27th Dec. 1866	Bentley Shaw. John Appleyard.
BOXES, TRUNKS, PORTMANTEAUS, LETTER-BOXES, WORK-BOXES, DRESSING-CASES, CANISTERS.			
An improved construction of certain parts of metallic chests, strong rooms, safes, deed boxes and such like receptacles.	541	21st Feb. 1866	William Deakin.
Tools for dividing wood into cylinders - - (*making boxes.*)	654	3rd March 1866	Nathan Thompson.
Construction of wrought-iron safes - - - (*or chests.*)	694	7th March 1866	George Price.
Manufacture of boxes - - - -	802	17th March 1866	Nathan Thompson.
Certain improvements in the manufacture of iron safes and other strong boxes.	911	29th March 1866	Reuben Noake.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Boxes, &c.—*continued.*			
Fastenings for trunks, boxes, bags, valises and other like articles. (*Communicated by William Shankland Paddock.*)	1011	9th April 1866	William Clark.
Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles - -	1013	9th April 1866	William Rawlings. Wilhelmus Rest.
Receptacles for bottles, eggs and other fragile articles.	1027	10th April 1866	Stephen William Silver. Albert Hayward.
Certain descriptions of locks - - - (*for portmanteaus.*)	1056	14th April 1866	Thomas Cooper, the younger.
Fastenings for doors, safes, boxes, drawers and other applications where locks or fastenings are required.	1118	20th April 1866	James Allen.
Application of materials to surfaces for ornamental purposes. (*ornamenting boxes.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key. (*box or receptacle.*)	1166	25th April 1866	Henry Charles Butcher.
Manufacture of paper and cardboard boxes, and the lids of the said boxes.	1523	31st May 1866	John Linnett.
Travelling bags, valises and trunks - - (*Communicated by Zoheth Sherman Durfee.*)	1575	8th June 1866	Charles Denton Abel.
A new and improved lock or fastener for securing the lids of milk cans, boxes, trunks or other similar receptacles.	1605	13th June 1866	Robert Lancaster.
Improvements in cases for packing and transporting bottled ales and other liquors, and in the method of packing the same.	1678	23rd June 1866	Henry Gardner.
Certain improvements in canisters for containing tea or other substances.	1684	25th June 1866	William Welbourne.
Manufacture of metal boxes, tins or cases. (*Communicated by Childéric Allain and Jules Trottier.*)	1722	28th June 1866	William Edward Gedge.
An improved looking-glass press, including an incombustible strong box.	1800	9th July 1866	Pierre Joseph Bellot, sen^{r}.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*match boxes.*)	1898	21st July 1866	Edward Tomlinson.
An improvement in the construction of safes, strong rooms and other similar depositories. (*deed boxes.*)	1993	2nd Aug. 1866	Isaac Eldon Chillcott.
An improved metal spring box or case for fusees, cigars and other purposes.	2359	14th Sept. 1866	Colen Hewer Cheshire.
Boxes or cases for packing and exhibiting goods or articles of various kinds.	2370	14th Sept. 1866	Richard Couchman.
A combined bath, travelling trunk and self-rocking cradle.	2391	18th Sept. 1866	William Henry Bailey.
Show cases or boxes - - - - -	2401	18th Sept. 1866	Frederick Sage.
Construction of letter boxes and letter pillars -	2404	19th Sept. 1866	William Dennis.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*boxes, tea-chests, dressing-cases, &c.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BOXES, &c.—*continued.*			
Improvements in the construction of trunks, portmanteaus and boxes, parts of which improvements are also applicable to other useful purposes.	2619	10th Oct. 1866	Michael Myers.
Certain improvements in canisters or receptacles for containing tobacco.	2637	12th Oct. 1866	James Massey Bancroft.
Cases for holding preserved meat and other substances.	2639	12th Oct. 1866	Edward Conyers Dawson.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*boxes.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Knapsacks, valises and other portable cases -	3019	17th Nov. 1866	Nicolas Michel Marin.
Construction of safes and key boxes to be used by bankers and others.	3265	12th Dec. 1866	Samuel Chatwood.
An improved safety bottle case - - -	3400	27th Dec. 1866	Bentley Shaw. John Appleyard.
Manufacture of metallic boxes - - -	3428	29th Dec. 1866	Friedrich Leonardt.
BREAD, BISCUITS AND PASTRY; BAKERS' OVENS.			
Ovens for baking bread and other aliments - (*Communicated by Charles Nicolas Athanase Lesobre.*)	1472	26th May 1866	Henri Adrien Bonneville.
Mode of and apparatus for heating bakers' ovens -	1608	13th June 1866	John Lunt.
Ovens for baking - - - - -	2291	6th Sept. 1866	George Pimm.
Improvements in brewing, malting, distilling and apparatus employed therein, parts of which are applicable for drying grain or other goods. (*or for bakers' ovens.*)	2416	20th Sept. 1866	Andrew Barclay Walker.
An improved mode of treating stale bread and biscuits with a view to restoring their freshness. (*Communicated by Charles Vitoux and Alfred Braconnier.*)	2587	8th Oct. 1866	John Henry Johnson.
Construction of travelling ovens - - - (*Communicated by William Hinchliffe.*)	2737	23rd Oct. 1866	George Haseltine.
BREAKS, SKIDS AND BUFFERS FOR CARRIAGES AND RAILWAYS.			
Breaks for railway and tramway carriages - - (*Communicated by John Davis.*)	67	9th Jan. 1866	James Marius Macrum.
Stopping and preventing slip from wet rails of locomotives and railway trains, and stopping carriages generally, and equalising force without fly wheels.	127	15th Jan. 1866	Thomas Comfield the younger.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BREAKS, &c.—*continued.*			
Certain improvements in railway breaks - -	156	17th Jan. 1866	Joseph Kennedy. Richard Stanley.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes. (*buffer and draw springs.*)	168	18th Jan. 1866	George Spencer.
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles. (*buffer springs.*)	229	24th Jan. 1866	James William Evans.
Differential screw apparatus - - - (*applicable to breaks.*) (*Communicated by François Durand, and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Construction of breaks for carriages - - -	277	29th Jan. 1866	Gerard de Witte.
Means and apparatus of communicating motion or power from the engine of a train to any part of the train. (*working breaks.*)	289	30th Jan. 1866	Henry Shaw.
Buffers, draw springs and bearing springs - - (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*buffers.*)	369	7th Feb. 1866	Uriah Scott.
Railway brakes - - - - - -	564	23rd Feb. 1866	John Holly.
Railway brakes - - - - - -	645	3rd March 1866	John Clark.
Operating railway carriage brakes - - - (*Communicated by Samuel M'Cambridge.*)	651	3rd March 1866	William Edward Newton.
Construction and arrangement of springs - - (*for buffer springs.*)	763	14th March 1866	Julien François Belleville.
Improvements in the manufacture of railway wheels and in apparatus for the same, which apparatus is also applicable for the manufacture of railway buffers.	803	17th March 1866	Pierre Michaud.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.
Breaks or mechanism for retarding and stopping railway and other carriages - - - -	886	26th March 1866	James Richardson. John Tait.
Atmospheric railway breaks and communications -	996	7th April 1866	Charles Kendall.
Improvements in railway rolling stock, with the object of ensuring the safety of travellers. (*breaks.*) (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Improvements in or applicable to carriage, buffer, draw and other springs - - - -	1289	5th May 1866	Harry Statham. Benoni Collins.
Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (*pendulous buffers.*) (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages. (*stopping the engine.*)	1957	28th July 1866	John Phillips-Smith.
Railway brakes - - - - - -	2111	16th Aug. 1866	John Holly.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BREAKS, &c.—*continued.*			
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.
Improvements in or connected with carriage breaks (*Communicated by Jean Pierre Haffner and Louis Désiré Guillet.*)	2203	27th Aug. 1866	Clinton Edgcumbe Brooman.
Improvements in railway breaks, parts of which improvements are applicable as shaft couplings. (*Communicated by Victor Amédee Gellée.*)	2219	28th Aug. 1866	John Henry Johnson.
An improved railway break - - -	2302	7th Sept. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
An improved carriage break applicable to common roads.	2414	20th Sept. 1866	George James Walker.
Machinery for stopping or retarding railway trains and preventing accidents on railways.	2423	21st Sept. 1866	Gilbert Amable Laurent.
Breaks for retarding machinery and vehicles used on rail or common roads - - -	2435	22nd Sept. 1866	Samuel Richards Freeman. Abraham Grundy.
Apparatus for preventing injury to persons in railway trains. (*buffers.*) (*Communicated by The Baron Von Roesgen Von Floss.*)	2621	10th Oct. 1866	William Manby.
Brakes for common road carriages - -	2775	26th Oct. 1866	Leonard Latter.
Apparatus relating to railway switches, signals and stop blocks - - - - - -	2838	1st Nov. 1866	James Deas. Richard Christopher Rapier.
Carriage brakes - - - - - -	2879	6th Nov. 1866	William Henry Clapp.
Friction breaks and apparatus for giving motion to machinery.	2881	6th Nov. 1866	Robert David Napier.
An improved brake for railway carriages - - (*Communicated by Aaron Higley, Joseph Benjamin Birdsell and Varium Ogilva Birdsell.*)	2898	7th Nov. 1866	George Haseltine.
Railway breaks - - - - - -	2984	14th Nov. 1866	John Clark.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - - -	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Railway carriages and waggons - - - (*applying breaks.*) (*Communicated by Samuel Maynard.*)	3256	11th Dec. 1866	Clinton Edgcumbe Brooman.
Railway buffers - - - - - -	3261	11th Dec. 1866	Thomas Henry Cooper.
An improved safety attachment to carriages - (*Communicated by Claude Ducrux.*)	3418	29th Dec. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BREWING, FERMENTING, MAKING FERMENTED AND UNFERMENTED BEVERAGES; TREATING MALT AND HOPS.			
A new preparation of fruit beverages of a stimulating character.	34	4th Jan. 1866	Francis Wright.
Means or apparatus for condensing steam and other vapors, and for refrigerating fluids. (*cooling beer.*)	115	13th Jan. 1866	Norman Willis Wheeler.
Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (*Communicated by Felix Boutellas-Desmoulins.*)	189	20th Jan. 1866	William Edward Gedge.
Apparatus for cooling worts or other liquids -	302	31st Jan. 1866	John Miller. James Pyle.
Improvements in preparing champagne and sparkling wines, and in the apparatus to be employed therein.	490	16th Feb. 1866	Emile Dreveton.
Treatment of brewers' and distillers' grains -	565	23rd Feb. 1866	Robert Milburn, jun^{r}. William Henry Baxter.
Improvements and new applications in the manufacture of beer and alcoholic liquids. (*Communicated by Monsieur Charles Tellier.*)	615	28th Feb. 1866	Hector Auguste Dufrené.
Improvements in the means and apparatus employed for evaporating and cooling liquids applicable to various purposes. (*cooling worts.*)	747	12th March 1866	George Severn.
An improved apparatus for mashing malt or grain to be used in the processes of brewing and distilling.	905	28th March 1866	Thomas Ryder.
Preparation and application of malt grains or brewers' refuse as a manure.	949	3rd April 1866	Alfred George Lock.
Improvements in the treatment of grain and raw spirit, and in the apparatus employed therein -	985	5th April 1866	William Rowland Taylor. George Hewett.
A new unfermented beverage - - - -	1080	17th April 1866	Charles Joseph Berry King, M.D.
Fire-places or furnaces of malt and other kilns -	1147	23rd April 1866	Richard William Abbotts.
Apparatus for treating malt - - - -	1235	1st May 1866	Frederick Gritton.
Improvements in machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (*Communicated by James Foley.*)	1326	9th May 1866	John Henry Johnson.
Furnaces for obtaining perfect combustion of fuel - (*for brewing.*)	1398	17th May 1866	Josiah Hampton.
Refrigerators - - - - - -	1508	30th May 1866	Edmund Alfred Pontifex.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains in order to convert it into a spirit or liquid suitable for manufacturing purposes.	1445	23rd May 1866	Edward Gripper.
Coolers for the use of brewers and others - -	1499	29th May 1866	Thomas Haigh.
Improvements in the manufacture of malt and in apparatus for drying malt and hops.	1559	6th June 1866	William Lawrence.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BREWING, &c.—*continued.*			
Manufacture of and apparatus for the treatment of worts.	1560	6th June 1866	William Lawrence.
Cooling worts and other liquids - - -	1834	12th July 1866	Martyn John Roberts.
The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (*Communicated by Paul Schutzenberger.*)	1966	31st July 1866	Alfred Paraf.
Improvements in the manufacture of beer and other alcoholic liquids, and in the apparatus employed therefor. (*Communicated by Monsieur Charles Tellier.*)	2204	27th Aug. 1866	Hector Auguste Dufrené.
An improved process for treating and preserving beer and other fermented liquors. (*cider, perry, &c.*) (*Communicated by Eugene Velten.*)	2241	30th Aug. 1866	Henry Edward Newton.
A process of making improved beer and ale -	2298	7th Sept. 1866	John Schneider.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.
Refrigerators - - - - - -	2526	1st Oct. 1866	Alexander Mills Dix.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*heating malt kilns, cooling worts.*)	2744	24th Oct. 1866	Joseph Watts.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes. (*measuring wort.*)	2802	30th Oct. 1866	John Varley.
Process of cleansing, purifying and bleaching various kinds of grain. (*making malt.*)	3303	23rd Nov. 1866	Robert Potter, M.A.
An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.	3422	29th Dec. 1866	Joseph Slatter.
Preparation of food, of a substance to be employed in place of malt, and for the medication of food for animals.	3433	29th Dec. 1866	Johnstone Napier.
BRICKS, TILES AND BUILDING-BLOCKS.			
Making building bricks impervious to water or waterproof.	40	5th Jan. 1866	Elias Taylor.
An improved machine for pressing bricks. (*Communicated by Monsieur Louis Thelohan.*)	112	13th Jan. 1866	Hector Auguste Dufrené.
Machinery for making bricks, tiles and similar articles.	122	13th Jan. 1866	Cuthbert Greenwood Johnson.
Machinery or apparatus for manufacturing and pressing fire bricks, which machinery or apparatus is also applicable to the manufacture and pressing of common clay and other bricks -	155	17th Jan. 1866	Christopher John Crondace. John Field.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BRICKS, &c.—*continued.*			
Manufacture of building blocks of artificial stone -	558	13th Feb. 1866	Frederick Ransome.
Machinery for making bricks - - -	618	28th Feb. 1866	George Cowdery.
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances into bricks, tiles, pipes or other useful or ornamental articles.	1057	14th April 1866	Charles Henry Murray. Mathew Jennings.
Apparatus used in moulding clay or other plastic material into bricks and other articles.	1194	27th April 1866	Thomas Dixcee.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*for brick making.*) (*Communicated by Jakob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Improvements in the manufacture of bricks, tiles and other plastic substances, and in the machinery or apparatus employed therefor.	1389	16th May 1866	William Curry.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*material for making bricks.*)	1568	7th June 1866	John Carrington Sellars.
Machinery for making bricks - - -	1581	8th June 1866	Charles Henry Murray.
Apparatus for making bricks - - - (*Communicated by Robert Loudon Walker.*)	1712	27th June 1866	William Holborne Fyfe.
Improvements in brick making machines, and in the machinery or apparatus for operating the same. (*Communicated by Isaac Gregg.*)	1739	29th June 1866	John Henry Johnson.
Making of bricks - - - - - (*Communicated by Maurice Abord.*)	1754	2nd July 1866	Henri Adrien Bonneville.
Improvements in machinery for making bricks, which improvements are also applicable for moulding blocks for building, or for artificial fuel or for other purposes - - -	1768	3rd July 1866	Alexandre Pierre Joseph Allemand. Louis Gonzague Speyser.
Improved machinery for manufacturing bricks -	1770	4th July 1866	David Nichols. William Bradshaw Leachman.
Improvements in burning and drying bricks, pottery, earthenware, clay, lime and cement, and in the apparatus employed therein.	1794	7th July 1866	Robert Kunstmann.
Means or apparatus for the manufacture of bricks and tiles.	2061	14th Aug. 1866	Edward Page.
Machinery or apparatus for pressing bricks, tiles, corbels or other plastic work.	2195	25th Aug. 1866	Julius Frederick Moore Pollock.
Manufacture of calcareous bricks or artificial stones. (*Communicated by Alfred François Osselin.*)	2323	10th Sept. 1866	William Edward Gedge.
Machinery or apparatus for the manufacture of bricks, tiles and other similar articles. (*Communicated by François Durand.*)	2386	17th Sept. 1866	John Henry Johnson.
Composition and production of artificial stone, cements and other compositions. (*bricks.*)	2470	25th Sept. 1866	George Edward Van Derburgh.
Brick making machines - - - - (*Communicated by Antoine M'Nair.*)	2594	8th Oct. 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BRICKS, &c.—*continued.*			
Improved apparatus for washing clay and other earthy matters.	2736	23rd Oct. 1866	George Wethered.
Improvements in the manufacture of bricks and in the application or uses of the same.	2950	12th Nov. 1866	William Pidding.
Machinery for the manufacture of bricks - -	3200	5th Dec. 1866	John Toward.
BRIDGES, VIADUCTS AND AQUEDUCTS.			
Bridges - - - - - - - (*Communicated by Rembrandt Lockwood.*)	47	6th Jan. 1866	William Clark.
Manufacture of rails, bars and girders - -	453	13th Feb. 1866	Samuel William Kelly.
A new method of constructing bridges of a single reach or span from one bank to the other, that is without piles between the abutments.	489	15th Feb. 1866	Thomas Charles Boutet.
Construction of coffer dams - - -	816	20th March 1866	Henry King.
Construction of bridges, arches and roofs - -	913	29th March 1866	Edward Kochs. Theodor Reuter. Olaus Henrici, Ph.D.
A new kind of impervious concrete for covering floors or arches, and for other similar purposes.	975	5th April 1866	Thomas William Pearce.
Constructing the foundations and abutments of bridges, piers, jetties, retaining walls and other similar works.	1022	10th April 1866	William Douglas Robotham.
Construction of sleepers or supports for the rails of railways and for other purposes. (*for bridges.*)	1051	13th April 1866	Valentin Silvestre Fombuena.
Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Girders manufactured in iron, steel or otherwise, combined with timber.	1544	4th June 1866	Constantine Henderson.
Apparatus for excavating - - - - (*for bridge building.*)	1701	26th June 1866	John Milroy.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses. (*for bridges.*)	1803	9th July 1866	William Baines.
Means of preserving timber from decay - - (*for bridges.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith.
Construction of bridges and other like or analogous structures.	2022	6th Aug. 1866	Ephraim Lamb.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*for construction of bridges.*)	2230	29th Aug. 1866	James Davis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BRIDGES, &c.—*continued.*			
Apparatus for bending bars and plates of metal (*for bridges.*)	3291	14th Dec. 1866	Thomas Berney.
An improved method of securing the nuts of bolts (*used in iron bridges.*)	3334	19th Dec. 1866	Rudolph Bodmer.
BRUSHES AND BROOMS; BRUSHING AND WAXING APARTMENTS.			
Construction of tube brushes used in cleaning the tubes of marine, locomotive and all kinds of multitubular boilers.	139	15th Jan. 1866	Cornelius Moriarty.
Brushes or cleaners for cleaning gun barrels and other tubular articles.	537	21st Feb. 1866	Henry Bayliss.
Means and apparatus for producing and applying galvanic currents. (*frictional brushes.*)	582	24th Feb. 1866	Isac Louis Pulvermacher.
Rotary brushes and apparatus for brushing, currying or dressing the skin or hair of animals or hides	620	1st March 1866	Samuel Henton. Charles John Henton.
Construction of brushes for polishing paper prepared for the manufacture of paper hangings.	805	19th March 1866	John Higginbottom.
Apparatus for rotary brushing and rubbing	939	2nd April 1866	Charles Turner.
Shaving brushes	1517	31st May 1866	Albert Robert Cunningham.
Manufacture of brushes	1592	11th June 1866	Alexander Parkes.
Treatment and application of vegetable fibres (*for brushes.*)	1761	2nd July 1866	Werner Staufen.
An improved sweeping machine or apparatus (*Communicated by Alexandre Philippe Eugène Fleurquin.*)	1919	24th July 1866	William Edward Gedge.
An improved horse road scraper and brush	2020	6th Aug. 1866	William Smith.
Construction of apparatus for cleaning and polishing boots and shoes, such apparatus being also applicable to other purposes.	2200	27th Aug. 1866	Ephraim Lamb.
Machinery or apparatus for cleaning and polishing boots and shoes, harness and other manufactured leather goods.	2429	21st Sept. 1866	Thomas Challinor.
Improvements in brushes and in their manufacture (*Communicated by "The Florence Manufacturing Company."*)	2436	22nd Sept. 1866	Ira Dimock.
Mode or means of rotating brushes or other articles for which a circular or revolving motion is required.	2661	15th Oct. 1866	Stephen Holness.
An improved cylinder brush for waxing apartments, and apparatus used therewith.	2761	26th Oct. 1866	Jean Pierre Débauché.
Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles	2800	30th Oct. 1866	Henry Churchman. Frederick Braby.
Manufacture of brushes	2812	30th Oct. 1866	Frederick Brown.
A new metallic brush	2817	31st Oct. 1866	Thomas Welton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BRUSHES, &c.—*continued.*			
Manufacture of brushes and brush surfaces composed of india-rubber, gutta-percha, parksine, leather or other similar elastic or flexible material.	2861	3rd Nov. 1866	Matthew Chamberlain.
Manufacture of hair, nail, tooth and flesh brushes -	3154	30th Nov. 1866	Henry Paul Truefitt.
An improved street sweeper - - -	3417	29th Dec. 1866	William Smith.
BUILDING, PLASTERING FLOORING AND ROOFING; WALLS, CEILINGS AND CORNICES; LADDERS AND BUILDING STAGES.			
Improved means or apparatus for lifting and lowering weights - - - - - - (*used in building.*)	13	2nd Jan. 1866	Thomas Constantine Fawcett. Henry Wilson.
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - - (*raising building materials.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Construction of fire proof floors for buildings -	224	23rd Jan. 1866	Richard Moreland, Junr.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
Travellers for warehouses, factories, building yards and other purposes.	411	9th Feb. 1866	William Nathaniel Wynn.
Improvements in and applicable to grates, and in the mode of fixing the same.	445	13th Feb. 1866	William Young.
Manufacture of rails, bars and girders - -	453	13th Feb. 1866	Samuel William Kelly.
An improved construction of certain parts of metallic chests, strong rooms, safes, deed boxes and such like receptacles.	541	21st Feb. 1866	William Deakin.
Machinery or apparatus applicable as a fire-escape, scaffold, lift or other such like useful purpose.	584	24th Feb. 1866	William Henry Prior.
Iron safes and strong rooms - - -	685	6th March 1866	John Chubb.
Construction of wrought-iron safes - - (*or strong rooms.*)	694	7th March 1866	George Price.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver, and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*ornamenting houses.*)	740	10th March 1866	Philip Henry Ashberry.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BUILDING, &c.—*continued.*			
Improvements in the doors or covers of safes, strong rooms and other receptacles of property, and parts surrounding such doors or covers.	754	13th March 1866	Joseph Jessop. William Warburton.
Iron safes, strong rooms and doors - -	895	27th March 1866	John Bracher.
Construction of bridges, arches and roofs - -	913	29th March 1866	Edward Kochs. Theodor Reuter. Olaus Henrici, Ph. D.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting buildings.*)	922	31st March 1866	James Davis.
Construction of the roofs of horticultural and other buildings and structures.	962	4th April 1866	William Howitt.
A new kind of impervious concrete for covering floors or arches, and for other similar purposes.	975	5th April 1866	Thomas William Pearce.
Portable dark chambers or tents for the purposes of photographic manipulation in the field, and of containing and transporting the necessary apparatus.	980	5th April 1866	Edgar Cox.
Construction of sleepers or supports for the rails of railways and for other purposes. (*for floors.*)	1051	13th April 1866	Valentine Silvestre Fombuena.
Application of materials to surfaces for ornamental purposes. (*ornamenting walls.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
Manufacture of non-conducting substances for impeding the passage of heat. (*lining for wine cellars, &c.*)	1327	9th May 1866	John Allcock Jones.
Economical construction and ornamentation of buildings.	1358	11th May 1866	Benjamin Nicoll.
Safes, strong rooms, iron doors and their locks -	1390	16th May 1866	Elihu Price. Cyrus Price.
Improvements in greenhouses and specially relating to the fixings, fittings, ventilation and shading of the same.	1399	17th May 1866	Thomas Hungate Preston Dennis.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Construction of iron girders and joists - -	1454	24th May 1866	Water Heathfield.
Girders manufactured in iron, steel or otherwise, combined with timber.	1544	4th June 1866	Constantine Henderson.
Improvements in the construction of safes, strong rooms and other similar depositories, and in the locks thereof.	1570	7th June 1866	Antoine Grivel the younger.
Horticultural glass houses - - - -	1580	8th June 1866	James Cranston.
Construction of safes or strong rooms - -	1598	12th June 1866	Frederick William Kurz.
Making of bricks - - - - - (*for ceilings.*) (*Communicated by Maurice Abord.*)	1754	2nd July 1866	Henri Adrien Bonneville.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses (*for architecture.*)	1803	9th July 1866	William Baines.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BUILDING, &c.— *continued.*			
Means of preserving timber from decay - - (*for building.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
Improvements in the construction of fire-escapes, such improvements being applicable to the construction of apparatus for analogous purposes. (*for ascending buildings*)	1990	2nd Aug. 1866	Ephraim Lamb.
An improvement in the construction of safes, strong rooms and other similar depositories.	1993	2nd Aug. 1866	Isaac Eldon Chillcott.
Manufacture of cornices, cornice pole ends, curtain bands and curtain pins.	2162	23rd Aug. 1866	Thomas William Hill Newbold.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder.	2230	29th Aug. 1866	James Davis.
The elastic tubular india-rubber air chambered pannels. (*see* "HARNESS.")	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Construction of the ceilings of buildings - -	2281	5th Sept. 1866	Charles Cetti.
A new or improved composition to be employed in architectural mouldings, and for other useful and decorative purposes. (*balcony pillars.*)	2320	10th Sept. 1866	Charles Bathoe.
Improvements in the manufacture of thatch and in machines or machinery for producing the same, which machines are also applicable for binding, sewing and stitching purposes generally.	2419	21st Sept. 1866	George Onley Gooday.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes. (*supporting stages for repair of buildings.*)	2816	31st Oct. 1866	John Scott.
An improved composition for coating walls or other surfaces so as to render them imprevious to the action of water or moisture.	2850	3rd Nov. 1866	Richard Jarraud Gay.
Iron safes and strong rooms - - -	2856	3rd Nov. 1866	John Chubb. William Henry Chalk.
An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (*Communicated by Charles Nivert and Blaise Dussop.*)	2904	7th Nov. 1866	William Edward Newton.
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes -	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Improvements in bedsteads and in their application in apartments.	2974	13th Nov. 1866	Julia Parris Brown.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*church fittings.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Apparatus for bending bars and plates of metal - (*for roofs.*)	3291	14th Dec. 1866	Thomas Berney.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BUILDING, &c.—*continued.*			
An improved method of securing the nuts of bolts - (*used in girders.*)	3334	19th Dec. 1866	Rudolph Bodmer.
For ventilating buildings, *see* "VENTILATION." For warming buildings, *see* "HEATING." For lighting buildings, *see* "LAMPS."			
BUOYS, MARINE LIGHTS, PRESERVING LIFE AND PROPERTY AT SEA, CONVEYING LINES TO STRANDED VESSELS, SWIMMING, IMPARTING BUOYANCY.			
Apparatus to be used for teaching swimming -	482	15th Feb. 1866	Alexander Cumming.
Construction of ships with a view to the saving of life at sea.	560	23rd Feb. 1866	Martin Samuelson.
An improved apparatus for saving life at sea, also adapted for use on all occasions to keep persons afloat in water.	658	3rd March 1866	Candido Ravelli.
Improvements in apparatus for conveying tidings of the loss or distress of vessels at sea, also applicable for conveying lines on shore from stranded vessels.	693	7th March 1866	George Randle.
Improvements in recovering sunken ships or vessels, and in the apparatus relating thereto. (*Communicated by Ernest Bazin.*)	910	29th March 1866	Henri Adrien Bonneville.
Improvements in sinking tubes, cylinders or caissons, for the foundations of piers, lighthouses, quay walls and similar structures, and for the sinking of mine shafts and wells.	995	7th April 1866	Thomas Scott.
Improved means and apparatus for preserving and saving life and property at sea in case of shipwreck - - - - - - -	1393	16th May 1866	Constante Aggio. Francesco Cotti. Natale Ferrario.
Improvements in the construction of parts of ships and other vessels, and in the mode or method of using or employing such parts as a means of saving life at sea and for other purposes - -	1514	31st May 1866	Henry William Hire. John White.
A new application of the electric light for lighting buoys of every description.	1651	20th June 1866	Adolphe Mironde.
Ships' furniture in which a steady platform is required. (*or life buoys.*)	2009	3rd Aug. 1866	Charles Ritchie.
Improved apparatus for saving life and property in cases of shipwreck. (*Communicated by François Frédéric de Closs-mann.*)	2123	18th Aug. 1866	William Edward Newton.
Improved means or appliances for preventing ships or vessels from foundering, by imparting additional buoyancy thereto.	2498	27th Sept. 1866	Joseph Eugene Thibault.
Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BUOYS, &c.—*continued.*			
An improved mode of ascertaining the true position of such vessels as have foundered at sea, and improvements in the apparatus or means connected therewith.	3044	20th Nov. 1866	Adam Hunter.
Raising sunken vessels - - - - - (*Communicated by Samuel William Maquay.*)	3067	22nd Nov. 1866	Thomas M^c^Comas.
A novel buoy or apparatus for storing valuable property on shipboard and preserving the same in case of shipwreck.	3238	8th Dec. 1866	François César Buisson.
Screw valves - - - - - - (*for admitting air in life preservers.*) (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.
For life boats, *see* "SHIP-BUILDING."			
BUTTONS, BUCKLES, STUDS, SLEEVE-LINKS AND OTHER DRESS FASTENINGS.			
An improved holder or fastener for shirt studs, brooches and other personal ornaments.	153	17th Jan. 1866	Matthew Allies.
Studs and buttons - - - - - -	187	20th Jan. 1866	James McClenahan.
A machine for making buttons from plastic materials, grinding, polishing and carding the same, parts of which can be used in grinding, polishing and carding other kinds of buttons.	244	24th Jan. 1866	Lodner Darrevontis Phillips.
Means and apparatus for producing and applying galvanic currents. (*buttons.*)	582	24th Feb. 1866	Isac Louis Pulvermacher.
Machinery for making eyelets - - - - (*Communicated by Thomas Garrick.*)	687	6th March 1866	George Tomlinson Bousfield.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.
Dress fastenings and ornaments - - - -	1131	21st April 1866	John George Taylor.
Attaching buttons, clasps, hooks and eyes or other similar fastenings to leather and other partially elastic or yielding materials. (*see* "GLOVES.")	1260	4th May 1866	Edward Field.
Improvements in apparatus for lacing boots and shoes, gaiters and other articles of dress, and in the mode of attaching the same. (*hook and button.*) (*Communicated by William Henry Shurtleff and Charles Henry Church.*)	1275	4th May 1866	John Henry Johnson.
A new or improved fastening applicable as a substitute for buckles.	1500	29th May 1866	Cedric Nurse.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
BUTTONS, &c.—*continued.*			
Buckles or fastenings for braces, belts and bands -	1602	13th June 1866	John Holloway.
Certain improvements in fastenings for articles of dress - - - - - - -	1690	25th June 1866	John Reading. Samuel Alfred Reading. George Edward Reading. Frederick Francis Reading.
Manufacture of studs and buttons - - -	1733	29th June 1866	Joseph Ashton.
New or improved plastic compounds applicable to various purposes where wood, horn and other like substances are now employed. (*for buttons.*)	1760	2nd July 1866	Franz Fried.
Construction and arrangement of the fastenings of leggings, gaiters, antigropelos and such like articles of dress - - - - - - -	1773	4th July 1866	Alfred Myerns.
Fastenings for corsets, stays and other articles of dress. (*Communicated by William Sparks Thomson.*)	1860	17th July 1866	Edward Drucker.
Buttons or studs to be used for fastening the shirt, the false collar and the cravat or bow cravat, ladies' collars and cravats, or other wearing-apparel.	1945	26th July 1866	Isidore Hayem, Junior.
Construction of buckles or fastenings for braces and other articles. (*Communicated by Charles Alfred Tordery.*)	2057	9th Aug. 1866	William Edward Gedge.
An improved buckle - - - - - (*Communicated by Charles Nivert.*)	2122	18th Aug. 1866	Baldwin Fulford Weatherdon.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
Manufacture of certain parts of brooches and other similar dress fastenings and ornaments.	2731	23th Oct. 1866	John Richards.
An improved rivetting press for securing buttons to fabrics. (*Communicated by Willoughby Hahn Reed.*)	2780	27th Oct. 1866	George Davies.
Improvements in buttons and in the attachment of buttons to garments and fabrics.	2781	27th Oct. 1866	George Augustus Huddart.
Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.	2892	7th Nov. 1866	James Clement Newey.
Buckles - - - - - - -	3239	8th Dec. 1866	Henry Southall.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CALCULATING, TEACHING.			
Certain improvements in machinery or apparatus for computing or reckoning quantities and amounts.	730	10th March 1866	Thomas Wallwork.
Means or apparatus to be employed in order to facilitate the teaching of writing and drawing.	2257	3rd Sept. 1866	Richard Frost.
An improved apparatus to teach book-keeping (*Communicated by Jean Hippolyte Savoureux.*)	2980	14th Nov. 1866	Henri Adrien Bonneville.
CANDLES, TAPERS AND WICKS.			
Night lights	1234	1st May 1866	John Jackson.
Improvements in the manufacture of tapers and of friction matches, and in the means of igniting friction matches.	1324	8th May 1866	Samuel Alexander Bell.
Manufacture of candles	1388	16th May 1866	Frederick Field.
Improved adaptable ends for candles (*see* "LAMPS.")	1420	19th May 1866	John Lyon Field. John Kingsford.
A new process in the treatment of concrete fatty acids for the manufacture of candles, called 'Stearine candles.'	1626	15th June 1866	Louis Adolphe de Milly.
The improvement of wicks for burning	2381	17th Sept. 1866	Robert M. Letchford.
Improvements in the manufacture of candles and in moulds employed in such manufacture	2658	13th Oct. 1866	Frederick Meyer. William Wainwright, Junr. Thomas Phillipson Pascoe.
Machinery for making wax tapers, composite greases of resinous substances, and cutting same into lengths	2730	23rd Oct. 1866	Joseph James Lane.
Machinery or apparatus employed in the manufacture of candles.	2732	23rd Oct. 1866	Arthur Field.
Preparation and application of certain fatty bodies (*manufacture of candles.*) (*Communicated by Mathias Paraf Javal and Eugene Paraf Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
CARDS, TABLETS AND CARD-CASES.			
An improved self acting card distributor	652	3rd March 1866	Edward Edwards Colley. Walter Moss.
Card cases (*Communicated by François Auguste Lamontagne.*)	1074	16th April 1866	John Henry Johnson.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface.	1582	8th June 1866	Henry Josiah Griswold.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARDS, &c.—*continued.*			
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for tablets.*)	1898	21st July 1866	Edward Tomlinson.
Mounts for cartes de visite and playing cards -	2864	5th Nov. 1866	Henry Medd.
CARRIAGES, CABS, OMNIBUSES, WAGGONS, CARTS, TRUCKS, VELOCIPEDES, LOADING AND TIPPING CARTS, &c.			
Improvements in the conveying of materials and in the apparatus employed therefor. (*see* "SHIP BUILDING.)	21	3rd Jan. 1866	William Simons.
Improvements in working and in the service of guns with fittings thereof, and in gun carriages.	43	5th Jan. 1866	Henry Duncan Preston Cunningham.
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages, and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
Machinery for sewing - - - - - (*leather for carriages.*)	132	15th Jan. 1866	Albert Francis Johnson.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles.	229	24th Jan. 1866	James William Evans.
Buffers, draw springs and bearing springs - - (*for railway carriages.*) (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Improvements in ordnance and carriages, and in elevating apparatus for the same.	298	30th Jan. 1866	Charles Octavius Staunton.
Improved apparatus or means for securing the safety of persons travelling by railway trains.	304	31st Jan. 1866	Coleman Defries.
Construction and lighting of railway carriages -	364	6th Feb. 1866	Richard Clark.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes.	369	7th Feb. 1866	Uriah Scott.
Barrows, carts, trucks or other vehicles - -	370	7th Feb. 1866	Edward Price.
Improvements in carriages and waggons with folding heads or coverings, and in carriage springs.	404	9th Feb. 1866	James Rock the younger.
An improved method in the rolling of coach spring, spindle and sheet steel.	464	14th Feb. 1866	William Unwin.
Construction of carts and other vehicles - - (*Communicated by Désiré Massé.*)	492	16th Feb. 1866	William Edward Gedge.
Improvements in the construction of railway wheels and in attaching them to their axles, part of which improvements are applicable to other wheels - - - - -	526	20th Feb. 1866	Clifford Etches Winby. Frederick Charles Winby.
Construction of street cabs and harness for the same	605	27th Feb. 1866	Maurice Cole.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARRIAGES, &c.—*continued.*			
Improved apparatus for loading waggons with hay, straw and other like products. (*Communicated by William Hervey Elliott.*)	640	2nd March 1866	Alfred Vincent Newton.
Two-wheel vehicles - - - - -	644	3rd March 1866	John Walter Friend.
Certain improvements in bearing springs for carriages and other vehicles.	725	9th March 1866	Benjamin Hadley.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*Ornamenting carriages.*)	740	10th March 1866	Philip Henry Ashberry.
Construction and arrangement of springs - (*for carriages.*)	763	14th March 1866	Julien François Belleville.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.
Carts for distributing water, liquid manure and other fluids over roads and lands - -	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting carriages.*)	922	31st March 1866	James Davis.
Couplings of railway carriages, trucks or vans -	971	5th April 1866	Richard Douglas Morgan.
Certain new and useful improvements in springs which are particularly adapted to use as railroad car springs, but may be applied to other purposes. (*Communicated by Alexander Watson.*)	1039	12th April 1866	Alexander Horace Brandon.
Four wheeled vehicles for common roads - -	1089	18th April 1866	Robert Puckering.
Improvements in or applicable to carriages - (*Communicated by Isaac Merritt Singer.*)	1215	30th April 1866	George Davies.
Carts, wagons, lorries or any such like vehicles -	1250	2nd May 1866	Richard Brierley.
Improvements in railway rolling stock, with the object of ensuring the safety of travellers. (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Compressing cotton or other light materials, upon trucks or waggons, for transit upon railways or other roads - - - - - -	1273	4th May 1866	John Walker. Arthur Warner.
Improvements in or applicable to carriage, buffer, draw and other springs - - - -	1289	5th May 1866	Harry Statham. Benoni Collins.
Carriages or vehicles running on two wheels -	1345	10th May 1866	William Botwood.
Improvements in the means of and apparatus for preserving animal and vegetable substances from decomposition or decay, and for the conveyance and transport of the same. (*carriage or tank.*)	1349	10th May 1866	Donald Nicoil.
Doors to landau and other carriages similar thereto	1413	18th May 1866	Philippe Devilliard Achille Postweiler.
Wheeled carriages - - - - - -	1529	1st June 1866	Charles Brautigam.
Improvements in waggons or carts for carrying hay or other agricultural produce, in order to facilitate the stacking of such produce.	1604	13th June 1866	Frederick Cambridge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARRIAGES, &c.—*continued.*			
Springs for railway and other carriages - -	1670	22nd June 1866	Timothy Whitby.
A new or improved coupling for railway carriages, trucks and waggons. (*Communicated by Alexander Robert Terry.*)	1686	25th June 1866	Edward Griffith Brewer.
Improved modes of applying packing of elastic or flexible materials to axle trees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.	1699	26th June 1866	Charles Peachey Holliss.
Improved means of or apparatus for preventing the accumulation of mud or dirt on carriage wheels.	1716	27th June 1866	Herbert William Hart.
Carriage windows and other sliding frames -	1735	29th June 1866	John Imray. Joseph Ellis.
Improvements in the construction of railway rolling stock, and in the permanent way applicable thereto.	1745	30th June 1866	Telford Macneill.
An improved method of and apparatus for facilitating the passage of a guard or other person along the outside of a railway passenger train in motion.	1748	2nd July 1866	William James Baker.
Improvements in ordnance whereby they are rendered more portable, and in carriages for transporting the same.	1819	11th July 1866	William Hobbs.
Improvements in pneumatic railways and in carriages used therein.	1844	13th July 1866	Thomas Webster Rammell.
Facilitating the tipping of coal or other material from railway wagons and for the prevention of breakage of coal in tipping, also waste of coal while tipping.	1886	20th July 1866	William Edward Nethersole.
Construction of railway carriages - - -	1923	24th July 1866	William Edward Kochs.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages.	1957	28th July 1866	John Phillips-Smith.
An improved velocipede - - - - -	1981	1st Aug. 1866	Edward Gilman.
Construction of springs suitable for railway carriages and for various other uses.	2140	21st Aug. 1866	John Murphy.
An improved carriage for railways and overhead railways, by the use of which turntables are dispensed with.	2150	22nd Aug. 1866	Rudolph Wappenstein.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.
Means and apparatus for facilitating and perfecting the unloading of coals and other goods from railway waggons.	2193	25th Aug. 1866	Samuel Plimsoll.
The elastic tubular india-rubber air chambered pannels. (*for railway carriage seats.*)	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Carriages for field artillery - - - -	2265	3rd Sept. 1866	John Coope Haddan.
Improvements in gun carriages and in the mode of elevating and depressing guns.	2328	10th Sept. 1866	Robert Anthony Edwards Scott.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARRIAGES, &c.—*continued.*			
Improvements applicable to gun carriages and platforms or slides.	2338	11th Sept. 1866	Robert Anthony Edwards Scott.
Two-wheeled carriages - - - - -	2342	12th Sept. 1866	John Williams.
Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (*Communicated by Alfred Ely Beach.*)	2491	26th Sept. 1866	William Clark.
Apparatus for lifting or assisting to lift and for securing window sashes, shutters and other like frames and weights. (*railway carriage windows.*)	2511	28th Sept. 1866	Strother Price.
Improvements in the construction and mode of propulsion of locomotive carriages, and in apparatus to be used in connection therewith.	2551	4th Oct. 1866	John William Daniell.
Carriage indicators stating the distance travelled, the time when they have been hired or not, and if they are hired or not.	2597	9th Oct. 1866	Jean Monnin. Charles Bosc. Claude Antoine Boissenot.
Improvements in "Hansom cabs," parts of which improvements are equally applicable to other wheeled carriages.	2670	16th Oct. 1866	William Henry Postlethwaite Gore.
A new stage carriage to be called the "A 1 omnibus."	2678	17th Oct. 1866	William Harvey.
Improvements for a two-wheeled vehicle commonly called a Hansom safety cab.	2701	19th Oct. 1866	Featherstone Ockerby.
Certain improvements in vehicles or carriages for the conveyance of passengers.	2721	22nd Oct. 1866	John Day.
Construction of perambulators and other similar carriages.	2782	7th Nov. 1866	Charles Tiffin, junior.
An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (*Communicated by Charles Nivert and Blaise Dussap.*)	2904	7th Nov. 1866	William Edward Newton.
Fastenings or couplings - - - - (*for pole chains, splinter bars, &c.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Improvements in or applicable to safety cabs and like vehicles - - - - - -	3028	19th Nov. 1866	Thomas Earp. Ralph Ashton.
Improvements in gun carriages and in the means of working heavy ordnance.	3035	19th Nov. 1866	Jaques Hermann Auguste Gruson.
Apparatus for raising and lowering the heads of carriages.	3100	24th Nov. 1866	William Botwood.
Carriages - - - - - - -	3108	26th Nov. 1866	George Henry Morgan. Edward Morgan.
Connections between railway engines and carriages	3164	1st Dec. 1866	Walter Butler. Alexander Dalgety.
Means of communication between stations and railway trains in motion, and between passengers, guards and engine driver. (*construction of carriage seats.*)	3201	5th Dec. 1866	Henry Finch Swears.
Railway carriages and waggons - - - (*Communicated by Samuel Maynard.*)	3256	11th Dec. 1866	Clinton Edgcumbe Brooman.
Construction of vehicles to be used on railways -	3271	13th Dec. 1866	James Murphy.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARRIAGES, &c.—*continued.*			
An improvement on sledges - - -	3283	14th Dec. 1866	Albrecht De Neviers.
An improved coupling for railway carriages - - (*Communicated by George Dennis Spooner, John Frederic Fish Hale and Anrel Clement Stiles.*)	3360	20th Dec. 1866	William Robert Lake.
An improved safety attachment to carriages - (*see* "HARNESS.") (*Communicated by Claude Ducrux.*)	3418	29th Dec. 1866	Alfred Vincent Newton.
See also "AXLES." *See also* "BREAKS." *See also* "WHEELS FOR CARRIAGES." For ventilating carriages, *see* "VENTILATION." For warming carriages, *see* "HEATING." For lighting carriages, *see* "LAMPS."			
CARTRIDGES AND CASES.			
Cartridges for breech-loading fire-arms and ordnance.	137	15th Jan. 1866	Edward Mounier Boxer.
Cartridges for breech-loading fire-arms - - (*Communicated by Colonel Thomas Laidley.*)	443	13th Feb. 1866	William Robert Lake.
Improvements in breech-loading guns and rifles, and in cartridges to be used therewith.	519	20th Feb. 1866	John Henry Walsh.
Improvements in breech-loading fire-arms and in cartridges for the same. (*Communicated by Hiram Berdan.*)	529	20th Feb. 1866	William Edward Newton.
Pin cartridges - - - - - (*Communicated by Jules Félix Gévelot.*)	592	26th Feb. 1866	William Clark.
Breech-loading fire-arms and cartridges - -	688	6th March 1866	Westley Richards.
Improvements in breech-loading fire-arms and in cartridges to be used therewith.	722	9th March 1866	Thomas Restell.
Improvements in projectiles and in cartridges - (*Communicated by John Webster Cochran.*)	834	21st March 1866	Clinton Edgcumbe Brooman.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms and ordnance.	864	23rd March 1866	Thomas Wilson.
Apparatus for filling cartridges for breech-loading guns.	868	23rd March 1866	James Erskine.
Central fire breech-loading cartridges - -	880	24th March 1866	William Thomas Eley.
Improvements in the lock and other parts of breech-loading fire-arms, and in cartridges for the same.	1417	19th May 1866	George Vincent Fosbery, V.C.
Apparatus for turning over or closing the ends of cartridges.	1484	28th May 1866	James Erskine.
Machinery for the manufacture of metal cartridges - (*Communicated by John Angell Wood.*)	1656	20th June 1866	John Garrett Tongue.
Improvements in the construction of revolver fire-arms and in apparatus employed in their manufacture, also in cartridges to be used therewith.	1959	28th July 1866	John Adams.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms - -	1976	1st Aug. 1866	William Stokes. Charles Faulkner.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARTRIDGES, &c.—*continued.*			
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms, and in converting muzzle-loading into breech-loading fire-arms.	2016	4th Aug. 1866	Thomas Wilson.
Manufacture of central-fire cartridges for breech-loading fire-arms.	2126	18th Aug. 1866	John Abraham.
Improvements in breech-loading fire-arms and in cartridges for the same - - - -	2143	21st Aug. 1866	James Clarendon Ramsbottom Isherwood. Robert Warry.
Cartridges for ordnance - - - -	2146	21st Aug. 1866	Joseph Whitworth.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms.	2196	25th Aug. 1866	Edgar Brooks.
Improvements in the construction and combination of breech-loading and repeating fire-arms and ordnance, and in the cartridges for use in the same.	2205	27th Aug. 1866	William Krutzsch.
Machinery for the manufacture of spool tubes and cartridge cases.	2213	28th Aug. 1866	John Foster the younger.
An improved mode of preventing oxidation of lead balls in fixed ammunition. (*Communicated by Barton Howard Jenks.*)	2215	28th Aug. 1866	William Edward Newton.
Machinery employed in the manufacture of "Boxer" or other central-fire cartridge cases.	2222	29th Aug. 1866	William Thomas Eley.
An improved cartridge or cartridge case extractor for breech-loading guns - - - - -	2227	29th Aug. 1866	Thomas Turner, Junr. William Siddons, Junr.
Improvements in the lock and other parts of breech-loading fire-arms, and in cartridges and projectiles for the same.	2293	6th Sept. 1866	George Vincent Fosbery, V.C.
Improvements in breech-loading fire-arms and in the manufacture of cartridges to be used therewith. (*Communicated by Antoine Alphonse Chassepot.*)	2304	7th Sept. 1866	Clinton Edgcumbe Brooman.
Improvements in breech-loading fire-arms and in revolving fire-arms, and in cartridges for the said fire-arms.	2326	10th Sept. 1866	Edmund Harlow.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms.	2580	6th Oct. 1866	Johann Von der Poppenburg.
Central-fire percussion cartridges - - - - (*Communicated by Jules Félix Gévelot.*)	2589	8th Oct. 1866	William Clark.
Cartridges for breech-loading fire-arms - -	2653	13th Oct. 1866	Edward Mounier Boxer.
Improvements in breech-loading fire-arms and in cartridges for the same, part of which improvements are applicable to ordnance. (*Communicated by Charles François Galand.*)	2695	18th Oct. 1866	Marc Antoine François Mennons.
Improvements in breech-loading fire-arms and in cartridges to be used therewith.	2711	19th Oct. 1866	Thomas Restell.
Improvements in cartridges and in machinery for manufacturing the same. (*Communicated by Timothy James Powers.*)	2739	23rd Oct. 1866	William Robert Lake.
Improvements in the manufacture and construction of breech-loading fire-arms, and in cartridges for breech-loading fire-arms.	2743	24th Oct. 1866	Thomas Wilson.
Improvements in breech-loading fire-arms, also in the manufacture of cartridges and apparatus employed therein - - - -	2813	30th Oct. 1866	George Henry Daw. Perceval Moses Parsons.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CARTRIDGES, &c.—*continued.*			
Fire-arms and cartridges	2855	3rd Nov. 1866	Joseph Lewis.
Breech-loading fire-arms and cartridges (*Communicated by Martial Pidault and Guillaume Elièze, otherwise Lagrèze, and Jules Felix Gévelot.*)	2946	10th Nov. 1866	William Clark.
Manufacture and construction of cartridges for breech-loading fire-arms.	3183	4th Dec. 1866	Thomas Wilson.
Fire-arms and cartridges	3243	8th Dec. 1866	Westley Richards.
Improvements in breech-loading fire-arms and in cartridges to be used therewith.	3252	10th Dec. 1866	Edward James Warmington.
Certain improvements in breech-loading fire-arms and in cartridges and bullets for the same. (*Communicated by Hiram Berdan.*)	3253	10th Dec. 1866	William Edward Newton.
Manufacture of blasting cartridges and fuzees	3301	15th Dec. 1866	Alexander Rollason.
Improvements in breech-loading fire-arms, and in cartridge case extractors for breech-loading fire-arms, and in cartridges for breech-loading fire-arms.	3317	17th Dec. 1866	Walter Sandell Mappin.
Improvements in breech-loading fire-arms and in cartridges for the same.	3425	29th Dec. 1866	François Jules Manceaux.
CASKS AND BARRELS; CASK STANDS; BUNGS.			
Vessels and apparatus for containing and drawing off wine and other liquids. (*casks.*)	315	1st Feb. 1866	Eugene Candler.
Improved apparatus for manufacturing bungs, 'shivers', plugs and other articles of a like shape.	355	5th Feb. 1866	William Samuel Cluderay.
Improved means for indicating the quantities of liquids contained in casks and other vessels.	705	8th March 1866	James Tomlinson.
Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.	718	9th March 1866	Alexander Taylor Machattie.
An improved bung-turning lathe	1025	10th April 1866	James Kennan.
Improved apparatus for closing the tap holes of casks or barrels.	1203	28th April 1866	Thomas Hutton.
Method and means of securing and discharging the contents of pipes and vessels.	1330	9th May 1866	Samuel Middleton.
Casks and taps for drawing liquids therefrom	1368	12th May 1866	William Dennis.
An improvement in metallic barrels and other vessels for containing oil, water and other fluids. (*Communicated by William Stuben De Zeng.*)	1374	14th May 1866	William Edward Newton.
Metal hoops for casks, tubs and other like vessels (*Communicated by John Louis Alberger.*)	1449	23rd May 1866	George Haseltine.
An improved apparatus to be employed in drawing liquids from casks and other vessels.	1520	31st May 1866	Thomas Jones Smith.
Machinery for cutting corks and bungs (*Communicated by Charles Harris.*)	1549	4th June 1866	Corey M'Farland.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASKS, &c.—*continued.*			
Improvements in manufacturing metallic hoops for casks or other wooden vessels or utensils, and in machinery therefor.	1975	1st Aug. 1866	John Pool.
Apparatus for measuring and indicating the quantity of liquid drawn off thereby.	2333	11th Sept. 1866	Robert Anthony Hardcastle.
Improvements in the construction of bottles intended to contain malt liquors and other liquids, and in the mode of stoppering, unstoppering and drawing off the contents thereof, the said stoppers being also applicable to bottles of the ordinary kind and other vessels employed to contain liquids, fluids and gases, either separately or in combination. (*stoppers for barrels.*)	2572	6th Oct. 1866	William Dennis.
An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (*Communicated by Thomas Marsh.*)	2666	15th Oct. 1866	William Robert Lake.
Machinery for cleansing and washing casks or barrels.	2846	3rd Nov. 1866	Osborne Cadwallader Edwards.
Machinery and cutters for making bungs and taps for barrels and other utensils.	2906	8th Nov. 1866	John Kay Heywood.
An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (*Communicated by Thomas Marsh, Stephen Perry and John Balckom.*)	3073	22nd Nov. 1866	William Robert Lake.
Certain improvements in making metallic hoops -	3374	22nd Dec. 1866	Andrew Shanks.
Improvements in cleansing and purifying casks and other vessels, and in machinery or apparatus employed therein.	3391	24th Dec. 1866	Edwin Allen.
CASTING AND MOULDING METALS; MANUFACTURE OF CASTINGS.			
Machinery or apparatus for the construction or making of moulds for casting in metals.	56	8th Jan. 1866.	Archibald Gibb.
Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.	103	12th Jan. 1866	Josiah Timmis Smith.
Machinery and apparatus employed in casting metal tubes and other articles.	172	19th Jan. 1866	William Sumner.
Machinery for making moulds for casting metals.	196	20th Jan. 1866	William Thomas the younger.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids. and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
Certain improvements in casting chilled rolls -	463	14th Feb. 1866	Frederick Richard Wheeldon.
Improvements in casting metals and in moulds employed therein. (*Communicated by François Antoine Marie Boué.*)	611	28th Feb. 1866	Richard Archibald Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASTING, &c.—*continued.*			
Construction of ordnance - - - - - (*Communicated by James Tyler Ames.*)	673	5th March 1866	William Edward Newton.
Improvements in apparatus employed in casting in metals and other materials, and in the means employed for forming such apparatus.	701	8th March 1866	William Atkinson.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes.	740	10th March 1866	Philip Henry Ashberry.
A new or improved process of transforming scraps or cuttings of Bessemer steel and other scraps or cuttings of iron, puddled steel and cast steel, into ingots of cast steel. (*Communicated by Emile Martin and Pierre Emile Martin.*)	859	23rd March 1866	Clinton Edgcumbe Brooman.
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies.	901	27th March 1866	William Deakin. John Bagnall Johnson.
An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (*Communicated by John Blake Tarr.*)	1001	7th April 1866	Alfred Vincent Newton.
Moulding pipes, pillars, rollers or other articles of a similar character.	1007	9th April 1866	James Forster. John Hollinrake.
Apparatus for moulding toothed or other wheels or pulleys or portions of circles, for casting.	1191	27th April 1866	Thomas Deakin.
Manufacture of metallic bedsteads and other articles of like manufacture.	1427	21st May 1866	James Tombs.
Treating cast iron - - - - - (*Communicated by Thomas Blair.*)	1430	21st May 1866	James Livesey.
Machinery or apparatus employed when making moulds for casting metals.	1479	28th May 1866	Richard Canham.
Manufacture of cast steel - - - - -	1625	14th June 1866	Victor Gallet.
Machinery for making moulds for casting iron and other metal.	1631	16th June 1866	Asa Lees. James Brierley Slater.
Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor.	2060	10th Aug. 1866	Mathew Andrew Muir. James M'Ilwham.
Manufacture of seamless metallic tubes - - (*Communicated by William Forman Brooks.*)	2319	10th Sept. 1866	Alfred Vincent Newton.
An improved construction of weight - - (*Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.*)	2430	21st Sept. 1866	Alfred Vincent Newton.
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
A new and improved metal-founders' blacking, and mode of treating or preparing the same.	2479	26th Sept. 1866	John Carrington Sellars.
Improvements in the process of casting iron cylinders, or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together.	2518	29th Sept. 1866	Jean Gueunier Lauriac.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASTING, &c.—*continued.*			
Improvements in casting iron and steel, and in apparatus employed for this purpose	2522	29th Sept. 1866	Joseph Whitworth.
Grate bars (*Communicated by Samuel Harrison.*)	2559	4th Oct. 1866	John Henry Johnson.
Improvements in the melting and casting of steel, and in the apparatus employed therein.	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins.	2660	15th Oct. 1866	John Giles.
Making moulds for casting metals (*Communicated by Hadji Jappa.*)	2764	26th Oct. 1866	John Fisher.
Core bars or barrels	2914	8th Nov. 1866	Thomas Horsley. George Knighton.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes.	2940	10th Nov. 1866	Nicholas Korshunoff.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness.	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
Armour plating for vessels of war, floating or land batteries and fortifications.	3033	19th Nov. 1866	Jaques Hermann Auguste Gruson.
Manufacture of guns or heavy ordnance of cast metal.	3051	20th Nov. 1866	Jaques Hermann Auguste Gruson.
Improved machinery for making cast-steel railway wheels and other castings in metal. (*Communicated by John Blake Tarr.*)	3123	27th Nov. 1866	Alfred Vincent Newton.
Certain improvements in the method of producing metallic tubes, pipes or other similar hollow articles.	3181	4th Dec. 1866	Joshua Horton.
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.
Machinery for printing and cutting into sheets rolls of paper, and for collecting sheets to cut, also in the manufacture of stereotype printing surfaces	3222	6th Dec. 1866	John Cameron MacDonald. Joseph Calverley.
An improved apparatus for moulding the moulds of wheels, pulleys and circular and segmental works, in green sand without patterns.	3333	19th Dec. 1866	Jacob Goodfellow.
Casting rings suitable for making tyres of railway wheels and for other purposes.	3414	28th Dec. 1866	Ernst Fredrik Göransson.
CASTING AND MOULDING PLASTIC MATERIALS; MANUFACTURE OF MOULDED ARTICLES; PLASTIC COMPOSITIONS; MOULDING FUEL.			
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASTING PLASTIC, &c.—*continued.*			
Cases or apparatus for drying moulds - -	231	24th Jan. 1866	Matthew Hodgson Lishman. Edward Chambers.
Improvements in moulding articles of clay, earthenware or porcelain, and in apparatus used therein.	344	3rd Feb. 1866	Robert Jobson.
Apparatus for manufacturing dishes, plates and other similar articles, from pulverized clay or dust, or other suitable materials - -	358	6th Feb. 1866	William Boulton. Joseph Worthington.
Improvements in preparing clay, dust and similar materials, for making earthen and other ware, and in machinery for moulding hollow articles in earth, clay and other like materials.	402	9th Feb. 1866	Robert Williams Armstrong.
Manufacture of building blocks of artificial stone -	558	13th Feb. 1866	Frederick Ransome.
Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith.	576	24th Feb. 1866	Thomas Spencer.
An improved method of agglomerating peat, by which it is rendered suitable for use as fuel in the furnaces of manufactories and in other fireplaces. (*Communicated by Edmund Sharpe.*)	590	26th Feb. 1866	William Edward Gedge.
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling.	779	15th March 1866	Thomas Goulston Ghislin.
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances into bricks, tiles, pipes or other useful or ornamental articles - - - -	1057	14th April 1866	Charles Henry Murray. Mathew Jennings.
New or improved machinery for making impressions or forming moulds for stereotype or electrotype plates.	1186	27th April 1866	Mortimer Nelson.
Apparatus used in moulding clay or other plastic material into bricks and other articles.	1194	27th April 1866	Thomas Dixcee.
Manufacture of non-conducting substances for impeding the passage of heat. (*moulding into cakes.*)	1327	9th May 1866	John Allcock Jones.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbel l Dallas
Improvements in the moulds or matrices of stereotype plates, and in machinery for forming the same. (*Communicated by John Edson Sweet.*)	1448	23rd May 1866	George Haseltine.
Manufacture of compounds in the nature of kamptulicon.	1564	6th June 1866	Alexander Parkes.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*whitening medium for moulding*)	1568	7th June 1866	John Carrington Sellars.
Manufacture of brushes - - - -	1592	11th June 1866	Alexander Parkes.
Miner's safety lamps - - - -	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.
Manufacture of pulp - - - -	1654	20th June 1866	David Adam Fyffe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASTING PLASTIC, &c.—*continued.*			
New or improved plastic compounds applicable to various purposes where wood, horn and other like substances are now employed.	1760	2nd July 1866	Franz Fried.
Improvements in machinery for making bricks, which improvements are also applicable for moulding blocks for building, or for artificial fuel or for other purposes.	1768	3rd July 1866	Alexandre Pierre Joseph Allemand. Louis Gonzague Speyser.
An improved process for forming and combining small coal or coal dust into lumps, blocks or otherwise, to be employed for the purposes of fuel.	1782	5th July 1866	Henry George Fairburn.
Construction of apparatus for mixing, pressing and moulding coal and other substances, for the formation of artificial fuel, and dividing the same into blocks, such apparatus being also applicable to other analogous operations.	1871	18th July 1866	David Barker.
Imitating mother of pearl upon various surfaces - (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.
An improvement in moulding or pressing glass -	1994	2nd Aug. 1866	John Thomas Haden Richardson.
Manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture and ornaments thereon. (*Communicated by Henry Ludwig Danchell.*)	2180	24th Aug. 1866	Frederick Hahn Danchell, C.E.
Apparatus for regulating the supply of gas - (*moulding diaphragms.*)	2277	5th Sept. 1866	William Thomas Sugg.
A new or improved composition to be employed in architectural mouldings and for other useful and decorative purposes.	2320	10th Sept. 1866	Charles Bathoe.
An improved elastic waist for boots, shoes, slippers, clogs and sandals.	2383	17th Sept. 1866	Edward Wall.
Improvements in brushes and in their manufacture (*Communicated by "The Florence Manufacturing Company."*)	2436	22nd Sept. 1866	Ira Dimock.
The manufacture of scouring stones, commonly called soft or sandstones, used for the scouring and cleansing of stone floors, steps or other similar parts of domestic dwellings or other edifices, or similar places.	2464	25th Sept. 1866	James Duckett.
Composition and production of artificial stone, cements and other compositions.	2470	25th Sept. 1866	George Edward Van Derburgh.
An improved mode of and apparatus for folding and shaping belts or bands of india-rubber, or compound consisting partly of india-rubber and woven fabric.	2555	4th Oct. 1866	George Pomeroy Dodge.
Improvements in the manufacture of parkesine or compounds of pyroxylin, and in the production of imitations of ivory and pearl.	2709	19th Oct. 1866	Alexander Parkes.
Manufacture of artificial fuel - - -	2851	3rd Nov. 1866	John Roberts.
Manufacture of brushes and brush surfaces composed of india-rubber, gutta-percha, parksine, leather or similar elastic or flexible material.	2861	3rd Nov. 1866	Matthew Chamberlain.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*moulded articles.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CASTING PLASTIC, &c.—*continued.*			
Apparatus for the manufacture of crucibles and other hollow articles from plastic materials	3292	15th Dec. 1866	Thomas Vaughan Morgan. Edwin Hyles.
Machinery or apparatus for grinding clay and such like substances.	3376	22nd Dec. 1866	Henry Goodfellow.
See also "BOTTLES." *See also* "BRICKS." *See also* "EARTHENWARE." For moulding sugar, *see* "SUGAR."			
CEMENT AND PLASTER; BURNING LIME.			
Cement for making good the joints in oil stills and retorts, and joints exposed to medium or high temperatures	23	3rd Jan. 1866	George Starbuck. John Carrington Sellers.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cement.	580	24th Feb. 1866	William Welch.
Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.	718	9th March 1866	Alexander Taylor Machattie.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*forming concrete.*)	922	31st March 1866	James Davis.
A new kind of impervious concrete for covering floors or arches, and for other similar purposes.	975	5th April 1866	Thomas William Pearce.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel. (*making cement.*)	1041	12th April 1866	John James Bodmer.
Lime kilns or apparatus to be used in burning lime	1317	8th May 1866	John Russell Swann.
Manufacture of non-conducting substances for impeding the passage of heat.	1327	9th May 1866	John Allcock Jones.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*for burning lime, cement, &c.*) (*Communicated by Jakob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Apparatus for mixing concrete and other materials	1435	21st May 1866	Philip John Messent.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
Construction of furnaces and kilns (*for burning lime.*) (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CEMENT, &c.—*continued.*			
Improvements in burning and drying bricks, pottery, earthenware, clay, lime and cement, and in the apparatus employed therein.	1794	7th July 1866	Robert Kunstmann.
Manufacture of cements, concretes and artificial stone.	1970	31st July 1866	John James Bodmer.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces.	2168	23rd Aug. 1866	William Welch.
Lime and cement kilns - - - -	2179	24th Aug. 1866	Philip Arthur De Berenger.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*forming mortar.*)	2230	29th Aug. 1866	James Davis.
Improvements in drying solid substances and in the apparatus or means employed therein. (*cements.*)	2453	24th Sept. 1866	Robert Kunstmann.
The manufacture of scouring stones, commonly called soft or sandstones, used for the scouring and cleansing of stone floors, steps or other similar parts of domestic dwellings or other edifices, or similar places.	2464	25th Sept. 1866	James Duckett.
Composition and production of artificial stone, cements and other compositions.	2470	25th Sept. 1866	George Edward Van Derburgh.
Improved apparatus for washing clay and other earthy matters.	2736	23rd Oct. 1866	George Wethered.
Furnaces for the manufacture of alkali - - (*and calcining limestone.*)	2749	24th Oct. 1866	James Cochran Stevenson.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*cement.*) (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.
An improved composition for coating walls or other surfaces so as to render them impervious to the action of water or moisture. (*see* PAINTING.")	2850	3rd Nov. 1866	Richard Jarraud Gay.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*metallizing plaster.*) (*Communicated by Rufina Nöggerath-Timmerman.*)	2972	13th Nov. 1866	William Clark.
Manufacture of hydraulic cements - - -	3086	23rd Nov. 1866	Joseph James Coleman. Thomas Henry Coleman.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*see* "WATERPROOF.") (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.
Manufacture of cement - - - -	3388	24th Dec. 1866	Joseph Toussaint.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CEMENT, &c.—*continued.*			
An improved drying apparatus - - - (*whiting.*) (*Communicated by Gilbert Daniel Jones.*)	3408	28th Dec. 1866	Alfred Vincent Newton.
Mixing apparatus for mixing mortar and similar materials.	3450	31st Dec. 1866	Louis Gonzague Speyser.
CEMENTED AND FLOCKED FABRICS; ADHERING ORNAMENTS AND DEPOSITING METAL ON FABRICS OR YARNS.			
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
Certain improvements in printing designs on paper for hangings, coverings, sun blinds and other purposes. (*gold and bronze.*)	467	14th Feb. 1866	Robert Smith.
Improvements in ornamenting lace fabrics and in the machinery or apparatus employed therein. (*adhering chenille, cords, &c.*)	656	3rd March 1866	Charles Grey Hill.
The application of metallic substances upon textile materials in the state of thread. (*Communicated by Adolphe Benjamin Albert François Joseph Lepoutre Pollet.*)	893	27th March 1866	William Edward Gedge.
Manufacture of carpets and other goods having a raised terry or pile face. (*uniting back and face with cement.*) (*Communicated by the American Waterproof Cloth Company (incorporated).*)	964	4th April 1866	William Edward Newton.
Application of materials to surfaces for ornamental purposes. (*adhering titaniferous iron sand.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (*impregnating fabrics with metallic powder, &c.*) (*Communicated by Taliaferro Preston Shaffner.*)	1177	26th April 1866	George Haseltine.
Manufacture of paper hangings - - - (*applying bronze powders, &c.*)	1447	23rd May 1866	Paul Marie Balin.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*cork adhered to woven fabric.*) (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Manufacture of leather - - - -	1746	30th June 1866	Toussaint François Gillot.
Manufacture of card cloth - - - -	1826	12th July 1866	Joseph Moseley.
Imitating mother of pearl upon various surfaces - (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CEMENTED FABRICS, &c.—*continued.*			
New or improved modes of ornamenting kampakaon, linoleum, kamptulicon, enamelled india-rubber floor-cloths and other similar articles. (*adhering fibres.*)	2149	22nd Aug. 1866	John Longbottom.
Manufacture or ornamentation of cloth and pile fabrics. (*introducing beads or pearls.*) (*Communicated by Pierre Bouvier, Benôit Bouvier, Jean Baptiste otherwise Jules Bouvier, and Geoffroy Bouvier.*)	2351	13th Sept. 1866	William Clark.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing and placing, connecting and fastening together textile and other fabrics or materials so as to be sewn, or stitched, or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
A new or improved method of printing or applying designs in relief and brilliancy to all kinds of fabrics.	2719	22nd Oct. 1866	Francois Petitdidier.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*metallizing, sprinkling metallic powders, &c.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
CHAINS; CHAIN CABLES; HOOKS, HOOPS, RINGS.			
A new or improved vehicle for carrying the electric wires in submarine telegraphs. (*tube chains.*)	222	23rd Feb. 1866	François Wibratte.
A new or improved method of manufacturing those kinds of ornamental metallic chains known as 'Brazilian' or 'snake' and other like patterns, and in machinery or apparatus to be employed therefor.	317	1st Feb. 1866	Thomas Jenks.
Manufacture of rings for the "ring and traveller" system of spinning or twisting fibrous materials.	407	9th Feb. 1866	James Higgins.
Means and apparatus for producing and applying galvanic currents. (*galvanic chains.*)	582	24th Feb. 1866	Isac Louis Pulvermacher.
Chains and apparatus used for submarine purposes	632	1st March 1866	William Beare Caulfield.
Fastenings of the metallic hoops or bands employed in baling cotton and other substances	1097	19th April 1866	John Holmes. James Corbett Holtzaphell Slack.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CHAINS, &c.—*continued.*			
Dress fastenings and ornaments - - - - (*chains for ladies' hats.*)	1131	21st April 1866	John George Taylor.
Hooks or holders whereby to suspend curtains and other articles.	1172	26th April 1866	Henry Gardner.
Certain improvements in steam-engines and boilers (*hoops and rings.*)	1212	28th April 1866	John Charles Pearce.
Improvements in apparatus for winding in telegraphic cables, applicable also when winding in other ropes or chains.	1218	30th April 1866	Fleeming Jenkin.
Metal hoops for casks, tubs and other like vessels - (*Communicated by John Louis Alberger.*)	1449	23rd May 1866	George Haseltine.
Construction of connecting links or hoops - (*Communicated by Robert Creuzbaur.*)	1785	5th July 1866	Alfred Vincent Newton.
Improvements in manufacturing metallic hoops for casks or other wooden vessels or utensils, and in machinery therefor.	1975	1st Aug. 1866	John Pool.
Apparatus for holding and releasing cords, chains, ropes and bands - - - - -	1979	1st Aug. 1866	Walter Beaumont. William M^c^Master.
Improvements in the manufacture of flat-linked chains, and in the machinery employed in riveting and swaging the same and other articles -	2012	4th Aug. 1866	William Hartcliffe junior. Thomas Hartcliffe Lee.
An improved construction of bale fastening - (*Communicated by Hazard Knowles and Henry Anwyl Jones.*)	2117	17th Aug. 1866	Alfred Vincent Newton.
An improved mode of and means for uniting and securing the ends of bands or hoops designed for baling cotton, wool and other substances -	2345	12th Sept. 1866	Solomon Woodall. Jacob Martin Van Winkle.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*hollow hoops.*)	2522	29th Sept. 1866	Joseph Whitworth.
Improvements in ear-rings, which improvements may also be applied to the fastening of watch hooks and other articles of jewellery.	2554	4th Oct. 1866	George Elliott Searle.
An improvement in the manufacture of metal chains	2713	20th Oct. 1866	George Walter Dyson.
Apparatus or machinery for bending chain links -	2834	1st Nov. 1866	Henry Richard John Denton.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*suitable for making hoops.*) (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Improvements in the manufacture of chains and in the machinery or apparatus employed therein. (*Communicated by Josiah Copley, the younger.*)	2943	10th Nov. 1866	John Henry Johnson.
Looms for weaving - - - - - (*index chains.*)	2978	14th Nov. 1866	James Whitehead.
Improvements in the manufacture of chains and chain cables, and in the machinery therefor.	3041	20th Nov. 1866	Thomas Murray Gladstone.
Construction of links or shackles for connecting chain cables and other chains.	3078	23rd Nov. 1866	Isaiah Riley.
Improvements in reaping-machines and other agricultural implements in which endless delivery chains are or may be employed, and in machinery for making such chains.	3128	28th Nov. 1866	Richard Norfolk.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CHAINS, &c.—*continued.*			
Improvements in chain cable holders applicable for capstans and windlasses, and in apparatus for driving capstans.	3178	3rd Dec. 1866	William Horatio Harfield.
An improved detaching hook - - - (*Communicated by Samuel Brown and Leon Level.*)	3228	7th Dec. 1866	William Clark.
Connecting or fastening the ends of iron and other metal bands surrounding bales of cotton and other like packages. (*Communicated by Samuel Boyd.*)	3234	8th Dec. 1866	Henry Charles Lucy.
Cable stoppers - - - - -	3319	17th Dec. 1866	Lieut^{t}-Colonel James Baker. John Imray.
Certain improvements in making metallic hoops -	3374	22nd Dec. 1866	Andrew Shanks.
Casting rings suitable for making tyres of railway wheels and for other purposes.	3414	28th Dec. 1866	Ernst Fredrik Göransson.
Improvements in holding, distending and otherwise treating or finishing woven and other web fabrics, and in the means or apparatus employed therefor.	3415	29th Dec. 1866	John Erskine Brown.
CHARCOAL, COKE, CARBON, MOULDERS' BLACKING, LAMP-BLACK.			
Improvements in the manufacture and purification of lamp black and in apparatus employed therein. (*Communicated by Benoit Perra.*)	83	10th Jan. 1866	Richard Archibald Brooman.
Preparation of tetra-chloride of carbon - -	97	11th Jan. 1866	Charles Crump.
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*coke and ash.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
Improvements in the manufacture of coke and in the apparatus connected therewith.	269	27th Jan. 1866	Thomas Drane.
Coke ovens - - - - - (*Communicated by Jacob Bowers.*)	349	5th Feb. 1866	Charles Denton Abel.
Barrows, carts, trucks or other vehicles - - (*for removing coke.*)	370	7th Feb. 1866	Edward Price.
Improvements in apparatus for reburning and in apparatus for washing animal charcoal or charcoal substitutes.	683	6th March 1866	John Norman.
Treating animal charcoal used in refining sugar -	842	21st March 1866	Edwin Demas Elliot.
Construction of coke ovens - - -	919	29th March 1866	Charles Pardoe.
Coke ovens - - - - -	933	2nd April 1866	William Blow Collis. Edward John Collis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CHARCOAL, &c.—*continued.*			
Reburning animal charcoal - - -	952	3rd April 1866	James Robey.
Treating animal charcoal - - -	1005	7th April 1866	George Gordon.
Manufacture of gas - - - - (*and charcoal.*)	1156	24th April 1866	George Fitzjames Russell. William Henry Carbines.
Improvements in deodorizing, revivifying and calcining animal and vegetable charcoal, and in the apparatus employed therein.	1242	2nd May 1866	William Cormack. "
A new or improved process of cleansing animal black or bone charcoal, after or before its use for the purpose of filtering a saccharine syrup.	1366	12th May 1866	Gustavus Adolphus Jasper.
Treatment of animal charcoal used by sugar refiners or others, in order to its reuse.	1640	18th June 1866	William Barker Patrick.
An improved apparatus for manufacturing illuminating gas and producing bone black and other valuable residuum.	2067	11th Aug. 1866	John Israel Ensley.
Means and apparatus for effecting the revivification of animal charcoal.	2460	25th Sept. 1866	William Cormack.
The production and application of an imponderable fluid, together with the apparatus or means employed therein. (*from carbon and azote.*) (*Communicated by Martin Ziegler.*)	2536	3rd Oct. 1866	Clinton Edgcumbe Brooman.
An improved system or process of treating animal charcoal used in the purification of sugar, and also improved apparatus to be employed in such process.	2571	6th Oct. 1866	George Gordon.
Making gas and coke - - - - -	2733	23rd Oct. 1866	James Greenshields.
Improvements in the manufacture of coke and the small coke called breezes, and in the manufacture of coal gas. (*Communicated by August Conrad Dewies.*)	2909	8th Nov. 1866	George Shaw.
Carburetters - - - - - - - (*see* "LAMPS.") (*Communicated by Francis Stebbins Pease.*)	3308	15th Dec. 1866	William Clark.
Improvements in the manufacture of coke and charcoal, and in the ovens employed therein.	3419	29th Dec. 1866	Humphrey Chamberlain.
CHEQUES, RECEIPTS, PREVENTING SPECULATION.			
An improved system of consecutively numbering checks and "making up" or binding check books when so numbered.	988	6th April 1866	James Fraser.
Stamping or printing machines - - - (*receipts.*)	2717	20th Oct. 1866	Thomas Horby.
Preventing the recurrence of periods of excessive speculation and panic.	3075	23rd Nov. 1866	Frederick Maunder.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CHLORINE AND CHLORIDES.			
Preparation of tetra-chloride of carbon - -	97	11th Jan. 1866	Charles Crump.
Certain improvements in the treatment and utilization of the residual liquor arising from the production of chlorine gas.	753	13th March 1866	William Francis Deane.
Manufacture of chlorine - - - -	1948	26th July 1866	Waltar Weldon.
Preparation of bodies in which nitrogen is substituted for hydrogen - - - - -	1956	28th July 1866	Peter Griess. Heinrich Caro.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.
Coating and recovering metals from chlorides and other solutions of metals.	2095	15th Aug. 1866	James Webster.
The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (*Communicated by Charles Large.*)	2114	17th Aug. 1866	Edward Thomas Hughes.
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats. (*bi-chloride of carbon.*)	2418	20th Sept. 1866	Charles Crump.
Improvements applicable to the manufacture of chloride of lime or bleaching powder, and in apparatus connected therewith - - -	2467	25th Sept. 1866	William Neill the younger. Philip Smith.
An improved method of decomposing chloride of sodium and other compounds, by means of steam.	2768	26th Oct. 1866	Walter Weldon.
A process and apparatus for producing jointly or separately oxygen and chlorine, from the same chemical substance and in the same apparatus.	3171	3rd Dec. 1866	Jules Theodore Anatole Mallet.
Preparation of bleaching materials or compounds - (*chlorine gas.*)	3232	7th Dec. 1866	Thomas Gray.
Improvements in the manufacture of chlorine and in preparations for evolving chlorine for disinfecting and other purposes.	3411	28th Dec. 1866	Henry Bollmann Condy.
CHURNS, MILK CANS; MAKING CHEESE AND BUTTER.			
Improved apparatus to be employed in the manufacture of cheese.	786	16th March 1866	Thomas Manock.
Churns - - - - -	1205	28th April 1866	John William Hoffman.
An improvement in metallic barrels and other vessels for containing oil, water and other fluids. (*or milk cans.*) (*Communicated by William Stuben De Zeng.*)	1374	14th May 1866	William Edward Newton.
A new and improved lock or fastener for securing the lids of milk cans, boxes, trunks or other similar receptacles.	1605	13th June 1866	Robert Lancaster.
Apparatus to be employed in churning - -	1614	14th June 1866	Ellis Morris.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CHURNS, &c.—*continued.*			
Churns - - - - - - - (*Communicated by Leander Langdon.*)	2000	2nd Aug. 1866	John Gilbert Avery.
Churns - - - - - - (*Communicated by Sylvester Franklin Schoonmaker.*)	2198	25th Aug. 1866	George Haseltine.
Churns - - - - - - -	2500	27th Sept. 1866	George Slater.
CISTERNS, RESERVOIRS, TANKS AND BUCKETS.			
Improvements in the construction of steam-boilers, which improvements are also applicable to the construction of other vessels of a like character- (*receptacles for liquids, &c.*)	148	16th Jan. 1866	Richard Cherry. Edwin Crossley. William Bower.
Vessels and apparatus for containing and drawing off wine and other liquids. (*tanks.*)	315	1st Feb. 1866	Eugene Candler.
Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.	718	9th March 1866	Alexander Taylor Machattie.
Manufacture of articles made of plates, sheets or bars of wrought iron or of steel. (*tanks.*)	1106	19th April 1866	Daniel Evans.
Improvements in the means of and apparatus for preserving animal and vegetable substances from decomposition or decay, and for the conveyance and transport of the same. (*tanks.*)	1349	10th May 1866	Donald Nicoll.
Metal hoops for casks, tubs and other like vessels - (*Communicated by John Louis Alberger.*)	1449	23rd May 1866	George Haseltine.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances - - - - - (*for tenders.*)	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
Apparatus for drawing and preventing waste of water from service pipes or cisterns.	2457	25th Sept. 1866	James Chandler.
An improvement in water-closet cisterns and soil traps.	2532	3rd Oct. 1866	James Cavanah.
Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (*Communicated by Felix Bizard and Pierre Labarre.*)	2700	18th Oct. 1866	Clinton Edgcumbe Brooman.
Improvements in the construction of privies, dust-holes, commodes, water-closets, ash-pits and tank covers, and for other similar purposes.	2920	9th Nov. 1866	Solomon William Woodroffe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CLOCKS, WATCHES AND OTHER TIME-KEEPERS; WATCH KEYS, CHAINS AND GUARDS.			
Apparatus for regulating temperature, for recording temperature and for actuating timekeepers.	76	10th Jan. 1866	Robert Shaw.
Protectors for watches, portemonnaies and pocket books.	123	13th Jan. 1866	Henry Gottheimer.
Construction of electric clocks - - - (*Communicated by Max Levin.*)	136	15th Jan. 1866	Alfred Vincent Newton.
An improved construction of watch or time-keeper for watchmen - - - - - (*Communicated by Johannes Bürk.*)	164	17th Jan. 1866	Henry Abenheim. Emil Abenheim. Leopold Abenheim.
Mode of producing mechanical motion - - (*for clocks and watches.*) (*Communicated by Henry Smith.*)	220	23rd Jan. 1866	William Brookes.
Hydraulic machinery - - - - - (*for measuring time.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Electric clocks - - - - -	549	22nd Feb. 1866	Henry Bright.
Watches and other time-keepers - - -	622	1st March 1866	Charles Powell.
Improvements in keys for watches and clocks, parts of which improvements are applicable to the keys of ordinary locks.	637	2nd March 1866	James Carpenter.
New or improved mechanism for obtaining motive-power, particularly applicable for the self winding of clocks, time-pieces and other machinery requiring winding.	752	13th March 1866	Fredrich Gustav Adolph Horstmann.
An improved fly for moderating or regulating the movements of wheelwork. (*clocks.*)	870	24th March 1866	Philipp Stieffel.
Watch and chronometer cases - - -	881	24th March 1866	Thomas Adams.
Method of and apparatus for ascertaining latitude, longitude and Greenwich time.	946	3rd April 1866	John Martin Rowan. Alexander Morton.
An improved portable sun dial - - -	1127	21st April 1866	Joseph Jewsbury.
Guards for pocket-books, watches and watch keys -	1128	21st April 1866	John Macintosh. William Boggett.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Improvements in watch pendants, which improvements are more particularly applicable to keyless watches.	1314	8th May 1866	George Snowball.
Gas pyrometers, which may also be employed as thermometers. (*or for clockwork.*) (*Communicated by Joseph Jean Marie Durand and Celestin Pichoin.*)	1470	26th May 1866	Baldwin Fulford Weatherdon.
Apparatus for recording the distance travelled by vehicles and the time occupied therein. (*Communicated by Leocadio Ramon-y-Garcia.*)	1513	31st May 1866	William Clark.
An improved method of exhibiting the time on the dial plates of clocks and watches.	1679	23rd June 1866	Peter Barlow.
Construction of general electric telegraphic machines and the mode of working them - -	1725	28th June 1866	Francois Thierry Hubert. Henry David Green Truscott.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CLOCKS, &c.— *continued.*			
Improvements in the construction of electric clocks and in the means employed in working the same. (*Communicated by Ernest Van Bruyssel.*)	2285	5th Sept. 1866	Alfred Vincent Newton.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, time-pieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
An improved construction of weight - - (*for clocks.*) (*Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.*)	2430	21st Sept. 1866	Alfred Vincent Newton.
Construction and arrangement of chronometers, barometers and thermometers.	2446	22nd Sept. 1866	William Weichert.
Chronometers or other time-keepers - -	2447	24th Sept. 1866	Ignaz Herrmann.
Means of securing pocket-books and other portable articles on the person. (*watches.*) (*Communicated by Theodore Neuscheller.*)	2504	27th Sept. 1866	Friedrich Wilhelm Constantin Dromtra.
Improvements in the machinery of chimes, applicable also to organs.	2516	29th Sept. 1866	Daniel Imhof.
Improvements in ear-rings, which improvements may also be applied to the fastening of watch hooks and other articles of jewellery.	2554	4th Oct. 1866	George Elliott Searle.
An improved detecting apparatus for registering the time of watchmen, mechanics and other employés.	2646	12th Oct. 1866	Jacob Edward Buerk.
Manufacture of coloured glass windows and other translucent surfaces. (*clock faces.*)	2665	15th Oct. 1866	Philip Harry Newman.
Certain improvements in the construction of articles of jewellery - - - - - - (*keys, seals, &c.*)	2992	15th Nov. 1866	Thomas Vaughton. Oliver Vaughton.
Certain improvements applied to clocks and to the receiving apparatus of telegraphs. (*Communicated by Edouard Néel.*)	3023	17th Oct. 1866	William Edward Gedge.
Means and apparatus for indicating the time and distance travelled by vehicles. (*Communicated by Jules Henry Delaunay.*)	3124	27th Nov. 1866	William Clark.
A revolving watch-bow and pendant - -	3141	29th Nov. 1866	Robert Mitchell jun^{r}.
Apparatus for applying and regulating motive-power. (*for toy watches.*) (*Communicated by Joseph de Susini.*)	3173	3rd Dec. 1866	William Clark.
Nautical logs - - - - - - (*with clock work indicator.*) (*Communicated by Truman Hotchkiss.*)	3430	29th Dec. 1866	Alfred Brewster Ely.
Calendar movements for clocks - - - (*Communicated by Henry Horton.*)	3446	31st Dec. 1866	James Theodore Griffin.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, COVERING, PLATING, SHEATHING.			
1.—Coating, Plating, Lining and Facing Metallic Surfaces with Metals or other substances.			
An improved composition for coating materials and structures.	235	24th Jan. 1866	John Milne Watt.
Certain improvements in casting chilled rolls -	463	14th Feb. 1866	Frederick Richard Wheeldon.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*for coating iron.*)	580	24th Feb. 1866	William Welch.
Iron safes and strong rooms - - - (*plating.*)	685	6th March 1866	John Chubb.
Improvements in puddling iron and in apparatus employed therein. (*lining furnaces.*)	702	8th March 1866	Jacob Geoghegan Willans.
Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.	718	9th March 1866	Alexander Taylor Machattie.
Arrangement and construction of meters or apparatus for measuring water or other fluids - (*lining measuring chambers with lignum vitæ.*)	733	10th March 1866	Walter Chrimes Myers. Edward Myers.
A new compound applicable to the lining or covering of bearings, steps, axle-boxes, journals and other frictional parts of machinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.	813	19th March 1866	Charles Stanley Osborne.
Carts for distributing water, liquid manure and other fluids over roads and lands - - (*galvanising.*)	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
Improvements in the hoops of ladies' skirts, and in the covering of steel springs for the same and analogous uses.	1015	9th April 1866	Sylvester Judson Sherman.
Insulators for telegraph wires - - - (*Communicated by David Brooks.*)	1226	1st May 1866	George Davies.
Manufacture of non-conducting substances for impeding the passage of heat.	1327	9th May 1866	John Allcock Jones.
Improvements in the manufacture of hair felt and in apparatus therefor. (*for covering steam-boilers.*)	1342	10th May 1866	John White.
An improved composition for journal boxes or bearings. (*lining.*) (*Communicated by William Kinnear.*)	1485	28th May 1866	John Henry Johnson.
Improvements in the mode of and machinery for making hoes, trowels and other similar instruments. (*plating blanks.*)	1550	5th June 1866	Nathan Brand.
An improved composition for journal boxes or bearings. (*Communicated by George Myers and George Harper.*)	1578	8th June 1866	William Edward Newton.
Apparatus for generating steam or heating liquids. (*galvanising water tubes.*)	1694	25th June 1866	Edward Field. Francis Wise.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, &c.—*continued.*			
Construction and laying down of subterraneous telegraph wires. (*Communicated by Pierre François Léon Pérémé.*)	1761	2nd July 1866	Henri Adrien Bonneville.
Treatment and application of vegetable fibres (*for covering telegraph cables.*)	1761	2nd July 1866	Werner Staufen.
Busks of stays and corsets (*tinning.*)	1771	4th July 1866	Robert Alfred Young.
Elastic fabrics	1870	18th July 1866	John Macintosh. William Boggett.
Manufacture of tin and terne plates	1902	21st July 1866	John Saunders. Joseph Piper.
Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (*lining cylinders.*) (*Communicated by Stephen Oscar Ryder.*)	1922	24th July 1866	William Edward Newton.
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Treating iron for the purpose of converting it into steel or hard metal, and for plating or coating, and hardening and tempering iron and steel. (*Communicated by Elliot Savage.*)	1938	25th July 1866	William Edward Newton.
A new and improved method for insulating and protecting electric telegraph wires for submarine, subterranean and other lines, with improvements in the machinery and in the process and material.	1989	2nd Aug. 1866	William Alfred Marshall.
An improved telegraphic cable (*Communicated by Alexander John Baptist De Morat.*)	2052	9th Aug. 1866	William Robert Lake.
Coating and recovering metals from chlorides and other solutions of metals.	2095	15th Aug. 1866	James Webster.
An improved mode of preventing oxidation of lead balls in fixed ammunition. (*Communicated by Barton Howard Jenks.*)	2215	28th Aug. 1866	William Edward Newton.
Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials.	2431	21st Sept. 1866	James Clark.
An improved bronzing machine (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
The application of enamel to certain friction surfaces of looms for weaving. (*guide bars for pickers.*) (*Communicated by Edmond Sée and Paul Sée.*)	2650	13th Oct. 1866	Louis Rudolph Bodmer.
Treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so called galvanized iron, and also for manufacturing such plate in imitation of Russia iron. (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.
Lining or 'fettling' for puddling furnaces and containing vessels in which pig or crude iron is converted into wrought iron or steel.	2857	3rd Nov. 1866	John Player.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, &c.—*continued.*			
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*enamelling boilers and retorts.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Electric telegraphs - - - - (*coating poles with asphalte, &c.*)	3038	19th Nov. 1866	Josiah Latimer Clark.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Coating plates or sheets of metal - - -	3060	21st Nov. 1866	Edmund Morewood.
Obtaining useful products from certain materials produced in the process of galvanizing or coating iron with zinc.	3118	27th Nov. 1866	Charles Crockford.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*for covering wires, &c.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.
Improvements in insulating and protecting electric telegraph wires, and in the means or apparatus employed therein.	3192	4th Dec. 1866	William Alfred Marshall.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*or for covering telegraph cables.*)	3225	7th Dec. 1866	William Guest.
Construction of telegraph standards and insulators	3281	13th Dec. 1866	Charles Coles Adley.
Certain improvements in the construction of locks and keys.	3441	31st Dec. 1866	Herbert Allman.
XI.—Coating, Plating, Lining and Facing Glass, Wood, Stone, Plastic Materials, Textile Fabrics, &c.			
Treatment and application of vegetable fibres - (*for covering telegraphic cables.*)	14	2nd Jan. 1866	Werner Staufen.
Manufacture of fabrics composed of india-rubber and cotton or other vegetable fibres.	499	16th Feb. 1866	James Heywood Whitehead.
An improvement in the manufacture of waterproof paper. (*coating with india-rubber.*)	675	6th March 1866	Reuben German Allerton.
Improvements in preservative coatings, and in applying the same to casks, tanks and other vessels.	718	9th March 1866	Alexander Taylor Machattie.
Cricket balls, racket, tennis and foot balls - - (*lining with india-rubber.*)	739	10th March 1866	Charles Huntley.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*coating cloth, fibres of ropes, &c.*)	748	12th March 1866	John Macintosh.
Machinery and apparatus employed in the manufacture of waterproof and other fabrics.	782	16th March 1866	Thomas Briggs, Junr.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, &c.—*continued.*			
Construction of coffer dams - - -	816	20th March 1866	Henry King.
The application of metallic substances upon textile materials in the state of thread. (*Communicated by Adolphe Benjamin Albert François Joseph Lepoutre-Pollet.*)	893	27th March 1866	William Edward Gedge.
Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (*Communicated by Taliaferro Preston Shaffner.*)	1177	26th April 1866	George Haseltine.
Apparatus for coating wagon covers and other fabrics and materials.	1316	8th May 1866	Walter M'Ilwraith.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*covering with varnish.*)	1582	8th June 1866	Henry Josiah Griswold.
Machinery or apparatus for staining or coating the surfaces of paper with color or other material -	2005	3rd Aug. 1866	Thomas Campbell. Henry Coffey.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
Ornamenting bedsteads - - - -	2662	15th Oct. 1866	John Wright.
An improved process for the preparation of india-rubber and kindred gums. (*coating fabrics.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
An improved composition for coating walls or other surfaces so as to render them impervious to the action of water or moisture.	2850	3rd Nov. 1866	Richard Jarraud Gay.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects.	3341	20th Dec. 1866	Walter Gilbey.
An improved coating for paper and other materials designed to receive lead pencil marks, which may be repeatedly expunged with moisture.	3392	24th Dec. 1866	Sylvester Franklin Schoonmaker.
III.—Coating, Sheathing and Facing Ships; Compositions for the purpose.			
Means of preserving timber from decay - - (*coating for ships' bottoms.*) (*Communicated by George Palmer Ball.*)	124	13th Jan. 1866	Alexander Prince.
An improved composition for coating materials and structures. (*ships' bottoms.*)	235	24th Jan. 1866	John Milne Watt.
Mode of and apparatus for applying copper sheathing to ships constructed of or plated with iron.	257	26th Jan. 1866	François Louis Roux.
Certain improvements in preventing oxidation, as also the fouling of the lower parts of iron-built ships, which said improvements are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood.	352	5th Feb. 1866	John Russell.
Protecting iron ships and other submerged structures from corrosion and fouling.	774	15th March 1866	Martyn John Roberts.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, &c.—*continued.*			
Improved adhesive compositions for attaching copper or other sheathing to iron, wood or other ships or vessels.	1044	13th April 1866	Henry Benson James.
An improved varnish for preserving wood and for protecting iron ships and other metal work from oxydation and from fouling. (*Communicated by Adolphe Guibert.*)	1078	17th April 1866	Clinton Edgcumbe Brooman.
An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (*Communicated by James Beeston and John Spence.*)	1102	19th April 1866	Robert Hamilton.
Protecting iron ships from fouling and corrosion -	1195	27th April 1866	Jacob Baynes Thompson.
Preventing corrosion and fouling of iron ships -	1209	28th April 1866	William Peter Piggott.
Attaching wooden planking to iron ships and other vessels.	1322	8th May 1866	Joseph Horatio Ritchie, Junior.
An improved compound for coating ships' bottoms and other surfaces. (*Communicated by Charles James Eames.*)	1805	9th July 1866	Alfred Vincent Newton.
Means of preserving timber from decay - - (*coating for ships' bottoms.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Improvements in the permanent way of railways and in screw bolts for the same, which latter are also applicable to other purposes. (*bolts for securing armour plates.*)	2019	6th Aug. 1866	Perceval Moses Parsons.
Processes of jointing and connecting together armour plates used for covering and defending ships, ships' turrets, or batteries on land, against the effect of shot.	2038	8th Aug. 1866	Sir John Benson, Knight.
A new or improved method of constructing armour plated ships and vessels.	2151	22nd Aug. 1866	John Moore Hyde.
Constructing vessels of war and other structures required to be rendered shot proof.	2223	29th Aug. 1866	Timothy Whitby.
Sheathing iron ships and other floating bodies, and other iron structures subject to the action of sea and other waters.	2283	5th Sept. 1866	Henry Robins.
Improvements in connecting parts of machinery and structures liable to impulsive forces. (*armour plated ships.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
Sheathing of iron ships - - - -	2495	27th Sept. 1866	John Clowes Bayley. Daniel Campbell.
Bolts and washers - - - - (*for armour plates.*)	2524	1st Oct. 1866	James Chalmers.
An improved composition to be substituted for ordinary paints - - - - (*for coating ships.*)	2540	3rd Oct. 1866	William Hope. Henry Browning.
Fastenings and backing for armour plates - (*Communicated by John Gregory.*)	2821	31st Oct. 1866	Henry Headley Williams.
Sheathing vessels - - - -	2891	7th Nov. 1866	Thomas Dawson. John Paley.
Armour plating for vessels of war, floating or land batteries and fortifications.	3033	19th Nov. 1866	Jaques Hermann Auguste Gruson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COATING, &c.—*continued.*			
Improvements in armour plating or protecting vessels of war, forts and other like structures, and in the manufacture of the plates and material employed therein.	3249	10th Dec. 1866	Walter Chidiock Nangle.
An improved composition for the coating of the bottoms of ships and other vessels.	3348	20th Dec. 1866	Samuel Parry.
Construction of vessels of war and other structures requiring to be rendered shot proof.	3352	20th Dec. 1866	Timothy Whitby.
An improved compound for coating ships' bottoms and other surfaces. (*Communicated by Charles James Eames.*)	3355	20th Dec. 1866	Alfred Vincent Newton.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
XV.—Covering Rollers.			
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials to be spun.	400	9th Feb. 1866	Joseph Sutcliffe.
Mowing-machines - - - - - (*coating rollers with enamel.*)	1424	19th May 1866	James Bryce Brown.
An improved material for covering rollers used in the various processes of making cotton, linen and other yarns - - - - -	1741	30th June 1866	James Humber. George Haworth.
An improved machine for washing cloth and clothes.	2688	18th Oct. 1866	James Miller.
An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather - -	2807	30th Oct. 1866	Andrew Fairbairn. Thomas Stuart Kennedy. John William Naylor.
Rolls of spinning, drawing and other machines - (*Communicated by Edward Livingston Perry.*)	3161	1st Dec. 1866	William Edward Newton.
COFFEE, COCOA AND TEA; COFFEE-POTS AND TEA-POTS.			
Apparatus to be employed in treating and curing the tea leaf - - - - -	131	15th Jan. 1866	Frederick Campbell. William Burgess.
Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (*Communicated by Felix Boutellas-Desmoulins.*)	189	20th Jan. 1866	William Edward Gedge.
An improved automatic apparatus for roasting coffee and other substances. (*Communicated by Abner Baker.*)	527	20th Feb. 1866	Augustus Bryant Childs.
A new chemical process for manufacturing artificial tea.	690	7th March 1866	Henry Francis Davis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COFFEE, &c.—*continued.*			
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*tea-pots, coffee-pots, &c.*)	740	10th March 1866	Philip Henry Ashberry.
Certain improvements in canisters for containing tea or other substances.	1684	25th June 1866	William Welbourne.
Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (*coffee berries and cocoa nibs.*) (*Communicated by Eugéne Pierre Barrabé.*)	1724	28th June 1866	John Henry Johnson.
Apparatus for roasting coffee - - -	1756	2nd July 1866	Stephen Allen Hodd. William Upton.
Machinery or apparatus for mixing and repacking tea, also applicable to the mixing of other granular substances.	1861	17th July 1866	William Thompson.
Machinery or apparatus employed in dressing, screening and separating grain, and for other similar purposes. (*dressing and separating tea.*)	2177	24th Aug. 1866	Josiah Thomas Poyser.
Machinery for hulling and cleaning coffee and other berries or seeds. (*Communicated by William Van Vleek Lidgerwood.*)	2242	30th Aug. 1866	William Edward Newton.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*tea-chests, caddies, &c.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Coffee hullers - - - - - (*Communicated by Albert Angell, Henry Truman Bosturck Hayes and Andrew M'Kenney.*)	2928	10th Nov. 1866	Henri Adrien Bonneville.
An improved method or methods for treating coffee and tea for general uses.	3131	28th Nov. 1866	William Pidding.
Improvements in means or apparatus for drying wheat, barley, rice and other grain, which improvements are also applicable to the drying of of seeds, coffee and other matters - -	3377	22nd Dec. 1866	Algernon Sydney Ayre. Horatio Harriman Ayre.
An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.	3422	29th Dec. 1866	Joseph Slatter.
COFFINS, TOMBSTONES, EMBALMING.			
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes. (*for embalming.*)	642	3rd March 1866	Victor Larnaudés.
Coffins - - - - - -	1612	13th June 1866	John Cyrus Cole.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COFFINS, &c.—*continued.*			
Machinery for cutting dove-tail joints - - (*for coffins.*) (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins. (*coffin nails.*)	2660	15th Oct. 1866	John Giles.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*lettering tombstones.*) (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
COINS AND MEDALS.			
Improvements in weighing-machines and in apparatus for reducing to weight, part of which improvements are applicable for feeding blanks to coining presses and to other machines.	108	12th Jan. 1866	James Murdock Napier.
Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.	423	10th Feb. 1866	John Pinches.
Improvements in machinery or apparatus for the production of reduced copies of medallions and matrices, and for preparing the cutting tools for that purpose.	2609	9th Oct. 1866	Charles John Hill.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*medallions.*)	2975	13th Nov. 1866	William Walker Marston.
COMBS.			
Manufacture of elastic reeds and combs for weaving and other purposes.	555	23rd Feb. 1866	James Pass.
An improvement in combs - - - (*Communicated by François Fauvelle Delebarre.*)	1265	4th May 1866	Clinton Edgcumbe Brooman.
COMPASSES; MEASURING ANGLES; SURVEYING AND LEVELLING; MATHEMATICAL AND ASTRONOMICAL INSTRUMENTS; ASCERTAINING LONGITUDE.			
'Plotting' and 'computing' scales for the use of surveyors and engineers.	90	11th Jan. 1866	Henry Dean.
An improved mode of correcting the deviation of compasses in iron ships, and of constructing ships' compasses.	227	23rd Jan. 1866	Evan Hopkins.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COMPASSES, &c.—*continued.*			
Improved means of and apparatus for preventing oscillation and vibration of the card in iron ships' and other ships' compasses, by means of friction.	353	5th Feb. 1866	William Renney.
Pocket rules - - - - - - (*and for measuring angles.*) (*Communicated by Benjamin Green Martin.*)	534	21st Feb. 1866	William Robert Lake.
Ships' binnacle lamps - - - -	556	23rd Feb. 1866	William Nunn. Charles Williams Brown.
Mathematical drawing instruments - - (*compasses.*)	664	5th March 1866	William Ford Stanley.
Reflecting optical instruments - - - (*for setting out curves, measuring angles, &c.*)	723	9th March 1866	Henry Temple Humphreys.
An improved construction of gravitating level - (*Communicated by Henri Arquiene René Moën.*)	749	12th March 1866	Alfred Vincent Newton.
Nautical instruments and other instruments or apparatus of precision for use at sea. (*clinometers, compasses, dip-needles.*) (*Communicated by Jacques Augustin Normand.*)	838	21st March 1866	Michael Henry.
Improvements in indicating and recording the distance run and direction of a ship or vessel, and in apparatus employed therein - -	843	21st March 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.
Method of and apparatus for ascertaining latitude, longitude and Greenwich time - - -	946	3rd April 1866	John Martin Rowan. Alexander Morton.
Steering telegraphs or steering indicators and tell tales - - - - - - -	978	5th April 1866	Charles Jullien Viehoff. James Adolphe Matthiessen.
A new surveying instrument - - -	1202	28th April 1866	David Reid Edgeworth.
Improvements in stands for telescopes, surveying and other instruments, which stands are also applicable for other purposes.	1285	5th May 1866	Thomas Dennis Rock.
Fluid compasses - - - - -	1510	30th May 1866	William Ralph Hammersley.
Fluid compasses - - - - -	1627	15th June 1866	William Ralph Hammersley.
Construction of liquid compasses - -	2360	14th Sept. 1866	Alexander Cairns.
Apparatus for obtaining latitude and longitude -	2363	14th Sept. 1866	Cromwell Fleetwood Varley.
Mariners' and other compasses - - -	2863	3rd Nov. 1866	John Sacheverell Gisborne.
A steering indicator or a machine or apparatus for indicating to the eye by day and night the position and movement of the rudders of vessels.	3402	28th Dec. 1866	Nicolai Christian Franzen.
CONDENSING, COOLING, FREEZING.			
Means or apparatus for condensing steam and other vapors, and for refrigerating fluids.	115	13th Jan. 1866	Norman Willis Wheeler.
Apparatus for discharging the water resulting from condensed steam, from apparatus where steam is employed - - - - -	163	17th Jan. 1866	James Lee Norton. Frederic Ludovicus Henri William Bünger.
Machinery and apparatus employed in casting metal tubes and other articles. (*cooling the moulds.*)	172	19th Jan. 1866	William Sumner.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CONDENSING, &c.— *continued.*			
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*for making ice.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Apparatus for cooling worts or other liquids -	302	31st Jan. 1866	John Miller. James Pyle.
Means of and apparatus for refrigerating or freezing liquids and for producing ice.	540	21st Feb. 1866	Benjamin Ward Richardson.
Apparatus for producing ice - - -	613	28th Feb. 1866	John Norman. James Copeland.
Improvements and new applications in the manufacture of beer and alcoholic liquids. (*cooling.*) (*Communicated by Monsieur Charles Tellier.*)	615	28th Feb. 1866	Hector Auguste Dufrené.
Process of and apparatus for the distillation of tar and other substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.*)	616	28th Feb. 1866	William Edward Newton.
Cooling bacon-curing rooms or chambers - -	737	10th March 1866	Robert Andrew Boyd.
Improvements in the means and apparatus employed for evaporating and cooling liquids applicable to various purposes.	747	12th March 1866	George Severn.
An improvement in the manufacture of ice to fit it for making effervescing drinks.	800	17th March 1866	Oliver Weldon Jeyes.
Process and apparatus for distilling petroleum and other mineral oils. (*condensing the vapour.*) (*Communicated by Edward Braggins, Matthew Patrick Ewing and Hiram Bond Everest.*)	827	20th March 1866	William Edward Newton.
Steam-engines and boilers - - - - (*constructing the condensers.*)	861	23rd March 1866	William Louis Winans. Thomas Winans.
Means and apparatus for the distillation and rectification of hydro-carbon and other volatile oils.	896	27th March 1866	William Alexander Lyttle.
An improved furnace or oven for the cooling of window glass, and apparatus to be used therewith.	1159	25th April 1866	Déairé Bieves.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
An improved mode of and apparatus for preserving milk and cream, more especially designed for keeping milk fresh during transport - -	1198	28th April 1866	George Burnard. Ludwig Koppel.
Improvements in machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (*Communicated by James Foley.*)	1326	9th May 1866	John Henry Johnson.
Manufacture of non-conducting substances for impeding the passage of heat. (*lining for ice-houses.*)	1327	9th May 1866	John Allcock Jones.
Condensing apparatus - - - - (*Communicated by John Turnbull.*)	1406	17th May 1866	Philip Vandirbyl.
A new or improved machine for breaking or crushing ice, applicable to other purposes.	1416	18th May 1866	Joseph Purcell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CONDENSING, &c.—*continued.*			
Marine steam-engines and surface condensers -	1433	21st May 1866	Alexander Crichton.
Coolers for the use of brewers and others - -	1499	29th May 1866	Thomas Haigh.
Refrigerators - - - - - -	1508	30th May 1866	Edmund Alfred Pontifex.
Improvements in the manufacture of malt and in apparatus for drying malt and hops. (*and refrigerating.*)	1559	6th June 1866	William Lawrence.
Manufacture of and apparatus for the treatment of worts. (*cooling.*)	1560	6th June 1866	William Lawrence.
Improved apparatus for treating corn and other materials. (*cooling.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes - - -	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Cooling worts and other liquids - - -	1834	12th July 1866	Martyn John Roberts.
Machinery for condensing wool or other fibrous substances. (*see* "SPINNING.")	1882	19th July 1866	Samuel Longbottom. Thomas Shaw.
An improved implement for beating and cutting meat and other substances. (*chopping ice.*)	1910	23rd July 1866	Levi Lemon Sovereign.
Treating iron for the purpose of converting it into steel or hard metal, and for plating or coating, and hardening and tempering iron and steel. (*Communicated by Elliot Savage.*)	1938	25th July 1866	William Edward Newton.
Certain improvements in machinery or apparatus for amalgamating, purifying, cooling and bleaching lard or other similar materials.	2003	3rd Aug. 1866	Nicholas Kilvert.
The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (*Communicated by Charles Large.*)	2114	17th Aug. 1866	Edward Thomas Hughes.
Improvement in the manufacture of beer and other alcoholic liquids, and in the apparatus employed therefor. (*Communicated by Monsieur Charles Tellier.*)	2204	27th Aug. 1866	Hector Auguste Dufrené.
Improvements in brewing, malting, distilling and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.
Refrigerators - - - - - -	2526	1st Oct. 1866	Alexander Mills Dix.
Provision safes.	2632	11th Oct. 1866	William Watson.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof, and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*using air for cooling.*)	2744	24th Oct. 1866	Joseph Watts.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CONDENSING, &c.—*continued.*			
Certain improvements in coal oil lamps. (*gas condensers.*) (*Communicated by George Hall.*)	2958	12th Nov. 1866	Alfred Vincent Newton.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam.	3179	3rd Dec. 1866	John Ambrose Coffey.
Manufacture and treatment of hydrochloric and nitric acids.	3269	13th Dec. 1866	Isham Baggs.
Improved apparatus applied to millstones for grinding wheat and other grain. (*Communicated by Pierre Baillargeon.*)	3384	22nd Dec. 1866	William Edward Gedge.
CONFECTIONERY, LOZENGES, LIQUORICE CAKES.			
Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (*Communicated by Felix Boutellas-Desmoulins.*)	189	20th Jan. 1866	William Edward Gedge.
Improvements in the manufacture of Pomfret or liquorice cakes, rolls and pipes, and of lozenges and other similar articles of confectionery, and in apparatus to be used in the manufacture of such articles - - - - - -	500	16th Feb. 1866	William Wood. James William Wood.
Machinery for the manufacture of lozenges, wafers or pastilles of pasty materials.	935	2nd April 1866	Joseph Jules Derriey.
An improvement in the manufacture of confectionery (*Communicated by Lewson Everard Chase.*)	1231	1st May 1866	Oliver Rice Chase.
Improvements in the manufacture of lozenges, and of Pomfret or liquorice cakes and other similar articles of confectionery, and in apparatus for the same - - - - -	2512	28th Sept. 1866	William Wood. James William Wood.
COOKING AND APPARATUS USED IN COOKING.			
Improved apparatus for cooking potatoes - -	106	12th Jan. 1866	Pierre Louis Charon.
Means or apparatus employed in the combustion of gas in gas stoves and burners employed in heating and cooking.	110	13th Jan. 1866	John Calvin Thompson.
Obtaining motive-power either giving or not giving light. (*for cooking soup on board ship.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COOKING, &c.—*continued.*			
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last-named improvements are also applicable to other purposes. (*kettles.*)	740	10th March 1866	Philip Henry Ashberry.
Mode of and apparatus for diffusing moisture and heat through vegetable or other matters	811	19th March 1866	Edward Field. Francis Lloyd.
A new and improved gridiron	829	20th March 1866	Julien Denis.
Frying pans or utensils for cooking by frying	830	20th March 1866	Frederic Pelham Warren.
Improved cooking apparatus	894	27th March 1866	Frederic Pelham Warren.
Apparatus for heating houses and apartments (*Communicated by David Greene Haskins.*)	1003	7th April 1866	George Davies.
Cooking or kitchen ranges	1306	8th May 1866	Benjamin Wright.
Improved means of and apparatus for warming and keeping warm articles of food, particularly infants' food.	1467	25th May 1866	Edward Bevan.
Improved apparatus for treating corn and other materials. (*roasting.*)	1693	25th June 1866	Gaston Charles-Ange, Marquis of Auxy.
Kitchen ranges, ovens and steamers	2121	18th Aug. 1866	Ebenezer Stevens.
Improvements applicable to boiling, steaming and cooking apparatus.	2560	4th Oct. 1866	George Underwood.
Improvements in machinery or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus.	2567	5th Oct. 1866	Frederick Hills Schröder.
Gas stoves for heating and cooking	2908	8th Nov. 1866	James Thomson.
Cooking ranges	2917	9th Nov. 1866	Edward Knowles Heaps.
An improved lighting, heating and cooking apparatus.	3156	1st Dec. 1866	James Webster.
Improvements in the methods of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and using such apparatus for that and other purposes.	3165	1st Dec. 1866	Samuel John Browning.
Improvements in the furnaces of steam-boilers, which improvements may also be applied to other furnaces (*cooking stoves.*)	3197	5th Dec. 1866	Thomas Bridges. Joshua Bigwood.
Construction of stoves for cooking or other purposes	3274	13th Dec. 1866	Celeste Sinibaldi.
Saucepans, kettles and other vessels for culinary purposes.	3427	29th Dec. 1866	Edward Barnard Sampson.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.	3453	31st Dec. 1866	Frederic Pelham Warren.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COPYING, TRACING, DRAWING AND WRITING.			
Improved sheets, plates or apparatus to facilitate improvements in handwriting.	170	18th Jan. 1866	James Williams.
Improvements in copying presses, which improvements are also applicable to mangles or linen presses.	438	12th Feb. 1866	Charles Arnaud.
Improvements in photography, and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*drawings, &c.*) (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Mathematical drawing instruments - -	664	5th March 1866	William Ford Stanley.
An improved feeding holder applicable to writing and drawing pens.	1236	2nd May 1866	Fortuné François Benvenuti.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbell Dallas.
Improvements in the transmission of electric telegraphic despatches and in the apparatus employed therein. (*Communicated by Jean Joseph Etienne Lenoir.*)	1521	31st May 1866	John Henry Johnson.
Electro-magnetic striking attachments for paper ruling machines. (*Communicated by Malby Kingston Pelletreau and Ellicott David Averell.*)	1569	7th June 1866	John Garrett Tongue.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*producing a writing surface.*)	1582	8th June 1866	Henry Josiah Griswold.
Rulers - - - - - -	1620	14th June 1866	Richard Edward Hodges.
An improved instrument for writing - - (*see* "PENS.")	1695	26th June 1866	Henry Sullivan.
Improvements in holders for marking materials, which improvements are also applicable as holders for other substances.	1839	13th July 1866	William Edward Wiley.
Means or apparatus to be employed in order to facilitate the teaching of writing and drawing.	2257	3rd Sept. 1866	Richard Frost.
Transmitting facsimile copies of writings and drawings by means of electric currents. (*Communicated by Bernard Meyer.*)	2480	26th Sept. 1866	Henry Adrien Bonneville.
Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Emile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Electric telegraphs - - - - - (*Communicated by Joseph de Susini and Jean Marie Onésime Tamin.*)	2514	28th Sept. 1866	William Clark.
Manufacture of articles commonly called "writing" or "library sets," and other similar articles	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjeman.
Improvements in machinery or apparatus for the production of reduced copies of medallions and matrices, and for preparing the cutting tools for that purpose.	2609	9th Oct. 1866	Charles John Hill.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
COPYING, &c.—*continued.*			
Electric telegraph apparatus - - - (*Communicated by Joseph de Susini and Jean Marie Onésime Tamin.*)	2716	20th Oct. 1866	William Clark.
A new or improved portable or folding reading desk, stand or easel.	2853	3rd Nov. 1866	Edward Parsons North.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
Sculpturing or forming ornamental and other devices on and in marble, stone and other substances.	2960	12th Nov. 1866	Abdiel Hawkins.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern.	2975	13th Nov. 1866	William Walker Marston.
Improvements in shop fittings, applicable also to book shelves and other articles of furniture - (*writing tables.*)	3074	22nd Nov. 1866	George Frederick Stidolph. John Stidolph. Joseph Roberts Morley.
Preparation of printing surfaces by the aid of photography. (*or copying drawings.*)	3113	26th Nov. 1866	Robert Henelade Courtenay.
An improved pterotype or machine for writing with type.	3163	1st Dec. 1866	John Pratt.
An improvement in parallel rulers - - -	3241	8th Dec. 1866	James Davies.
CORK; CORKS AND BUNGS.			
Improved apparatus for manufacturing bungs, 'shivers,' plugs and other articles of a like shape.	355	5th Feb. 1866	William Samuel Cluderay.
Apparatus for cutting cork - - - (*Communicated by Louis Sauvan.*)	963	4th April 1866	Michael Henry.
An improved bung-turning lathe - - -	1025	10th April 1866	James Kennan.
Improvements in corking bottles and in the machinery or apparatus connected therewith. (*preparing corks.*)	1357	11th May 1866	Hugh Fraser.
Machinery for cutting corks and bungs - - (*Communicated by Charles Harris.*)	1549	4th June 1866	Corey M'Farland.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*cork adhered to woven fabric.*) (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects.	3341	20th Dec. 1866	Walter Gilbey.

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CUTTING, SAWING, PLANING.			
I.—Cutting, Sawing, Planing, &c., Metal, Stone, Wood, Cork and Slate.			
An improved wrench and cutter	68	9th Jan. 1866	William Dakin Grimshaw.
An improved nail and brad cutting machine	74	10th Jan. 1866	John Sadler.
Improvements in the manufacture of fasteners for binding papers and for other like purposes, and in machinery to be used in the said manufacture. (*cutting blanks.*)	104	12th Jan. 1866	Alfred Henry Hart.
Improved apparatus for manufacturing bungs, 'shivers,' plugs and other articles of a like shape.	355	5th Feb. 1866	William Samuel Cluderay.
Improvements in machinery used in cutting stone, slate and other minerals, and in forming tunnels, galleries and roads	433	12th Feb. 1866	William Fothergill Cooke. George Hunter.
Apparatus for shaving and cutting metal bars and metal tubing	506	17th Feb. 1866	John Wolstenholme. John Tomlinson Pendlebury.
Apparatus for tempering saws and other articles capable of being tempered between two heated surfaces.	582	23rd Feb. 1866	James Dodge.
Sawing machinery	598	27th Feb. 1866	Henry Wilson.
An improved apparatus for holding and driving cutting and other tools.	604	27th Feb. 1866	Frederick Morton Eden.
Tools for dividing wood into cylinders	654	3rd March 1866	Nathan Thompson.
Apparatus for cutting cork (*Communicated by Louis Sauvan.*)	963	4th April 1866	Michael Henry.
An improved carpenter's plane	973	5th April 1866	George Müller.
Machines for cutting, rolling and shearing bars or beams of metal for making rivets and for other purposes.	1325	9th May 1866	James Fletcher.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Improvements in weft forks and in tools employed in the manufacture thereof.	1506	30th May 1866	Hugh Schofield.
Sawing machinery	1519	31st May 1866	Josiah East.
Means or apparatus for holding or setting work to be cut, planed, turned, drilled or otherwise operated upon.	1524	31st May 1866	George Radford Mather.
Machinery for cutting corks and bungs (*Communicated by Charles Harris.*)	1549	4th June 1866	Corey M'Farland.
Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (*Communicated by Antoine Cultier.*)	1673	22nd June 1866	Charles De Grelle.
Machinery for turning, shaping and cutting metal	1677	23rd June 1866	Thomas Dunn.
Manufacture of blocks or pulleys by machinery (*Communicated by Arsène Bonnardel.*)	1702	26th June 1866	William Edward Gedge.
Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes. (*cutting and planing rollers.*)	1706	27th June 1866	Edward Ambrose.
Machinery or apparatus for grinding and polishing circular saws and other articles.	1812	11th July 1866	Edward M'Nally.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Ornamenting, printing, cutting and manufacturing articles from wood and other materials.	1898	21st July 1866	Edward Tomlinson.
Improved machinery for sharpening saws - -	1943	26th July 1866	Edward Hammond Bentall.
An improved tenoning and shouldering machine -	1983	1st Aug. 1866	George Henry Couch.
Improved machinery for sharpening saws - -	1984	1st Aug. 1866	John Parry. Richard Morris.
Machinery for cutting dove-tail joints - - (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
Applying motive-power to saw-frames - -	2044	8th Aug. 1866	John Robinson. John Smith.
Apparatus for cutting, grinding and finishing marble and other similar materials. (*Communicated by James W. Maloy.*)	2092	15th Aug. 1866	William Brookes.
Machinery or apparatus for cutting splints for making matches.	2166	23rd Aug. 1866	Thomas Allen.
An improved saw specially adapted for forest use, and improved saw teeth applicable to saws generally. (*Communicated by Pierre Flamm.*)	2170	23rd Aug. 1866	William Edward Gedge.
Machinery and tools for cutting slate, stone, marble and other minerals - - -	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
Machinery or apparatus for working stone, or cutting and working mouldings thereon.	2238	30th Aug. 1866	Thomas Gall.
Arrangement and construction of machinery or apparatus for sawing timber.	2300	7th Sept. 1866	James Lockhead.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics - (*or stone, marble, &c.*)	2350	13th Sept. 1866	Edmund Phillips. James Howie.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances - - - -	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
Machinery or apparatus for cutting frets in metal or other substances. (*Communicated by Madame Henriette Delong.*)	2365	14th Sept. 1866	John Henry Johnson.
Improvements in machinery for grinding, stripping and cutting file blanks, part of which improvements is also applicable to grinding and polishing chisels, plane irons and other articles.	2385	17th Sept. 1866	James Dodge.
Tube cutters - - - - - -	2395	18th Sept. 1866	Thomas Parkes.
Certain improvements in machinery or apparatus for planing metals - - - - -	2406	19th Sept. 1866	Elias Barlow. William Nathan Dack.
Securing teeth in saws - - - - - (*Communicated by The American Saw Company.*)	2426	21st Sept. 1866	William Clark.
Improvements in tube and bar cutters, and in apparatus connected therewith - -	2552	4th Oct. 1866	John Wolstenholme. Thomas Pendlebury.
Arrangements of machinery for dressing granite and all other kind of stone.	2705	19th Oct. 1866	Edward Wills Uren.
Saw mills - - - - - -	2837	1st Nov. 1866	William Geeves.
Screw stocks and tube cutters - - -	2840	2nd Nov. 1866	Thomas Chatwin.
Machinery for manufacturing screw nuts - - (*cutting, drilling and tapping.*)	2876	6th Nov. 1866	Edward Hammond Bentall.
Machinery and cutters for making bungs and taps for barrels and other utensils.	2906	8th Nov. 1866	John Kay Heywood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes -	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Machinery for cutting and heading nails - - (*Communicated by Jacob Russell, Henry Townsend M'Coun, James Lemuel Romer and Thomas Townsend Buckley.*)	2942	10th Nov. 1866	John Garrett Tongue.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes - - - - - - (*stone carving.*)	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern.	2975	13th Nov. 1866	William Walker Marston.
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.
An improved machine for cutting sugar cane - (*Communicated by Frederick James Vivian Minchin.*)	3187	4th Dec. 1866	Ferdinand Kohn.
Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class - - - -	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - - -	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Applying motive-power to saw frames - -	3267	12th Dec. 1866	John Robinson. John Smith.
Machinery for dressing slates - - -	3268	13th Dec. 1866	Henry Wren. John Hopkinson.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*plane irons.*) (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
Machinery for cutting, punching and shaping metals for screw nuts and like articles.	3410	28th Dec. 1866	Francis Watkins.
For cutting or getting coal, *see* "MINING." For cutting dyewoods, *see* "DYES." For cutting files, *see* "FILES AND RASPS." For cutting screws, *see* "NAILS."			
II.—Cutting Paper, India-rubber and Tobacco; Cutting and Splitting Leather and Cloth.			
Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state - - - -	75	10th Jan. 1866	James Clunan. Noah Nightingale.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Shears or scissors - - - - - (*tailors' shears.*) (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
Machinery for the manufacture of paper bags - (*Communicated by Benjamin Spencer Binney.*)	223	23rd Jan. 1866	William Clark.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (*Communicated by Edwin Blood.*)	437	12th Feb. 1866	Alfred Vincent Newton.
Machinery for cutting the pile of woven fabrics -	446	13th Feb. 1866	John Patterson.
Machinery for making collars, cuffs, wristbands and other similar articles of dress. (*Communicated by Henry Francis Knapp.*)	474	14th Feb. 1866	William Edward Newton.
Improved machinery or apparatus for reducing the thickness of parts of calf skins or of other skins or hides. (*Communicated by Adolphe Bel.*)	493	16th Feb. 1866	William Edward Gedge.
Means of or apparatus to be employed for cutting fustians or other similar fabrics.	515	19th Feb. 1866	Joshua Whalley.
Machinery or apparatus for cutting lace fabrics to make them into bonnet or cap fronts.	597	27th Feb. 1866	Charles Grey Hill.
A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands -	602	27th Feb. 1866	Myer Myers. Maurice Myers. William Hill.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather.	746	12th March 1866	Charles Linford.
Jacquard looms for weaving cut pile fabrics double (*Communicated by Anton Funk, Carl Emil Becker and August Hoffbauer.*)	846	22nd March 1866	Charles Denton Abel.
Leather splitting machines - - - (*Communicated by Amzi Hancen Van Gieson.*)	926	31st March 1866	Edward Thomas Hughes.
Apparatus for fleshing and shaving hides and skins of animals, in the raw, tanned or dressed state.	979	5th April 1866	William Ingham.
Apparatus for producing loom-sewed fabrics - (*cutting the threads.*)	1030	11th April 1866	William Wishart. Peter Cameron.
An improved machine for cutting tobacco for chewing and smoking. (*Communicated by George Washington Hoglen and Stephen Decator Graffin.*)	1036	12th April 1866	George Haseltine.
Machinery and apparatus used in the manufacture of sheets of india-rubber.	1305	8th May 1866	Charles Moseley.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Machinery for cutting india-rubber - -	1431	21st May 1866	John Macmillan Dunlop.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Improvements in machinery for cross raising the pile or nap of woollen and other cloths or fabrics, parts of which said improvements are also applicable to cross cutting machines - -	2297	7th Sept. 1866	Joseph Asquith. John William Asquith.
Machinery for cutting rags, ropes and other articles for paper-making and other purposes - -	2347	12th Sept. 1866	Enoch Harrison Aydon. Ebenezer Pocock.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics -	2350	13th Sept. 1866	Edmund Phillips. James Howie.
Cutting out of boots, shoes and gaiters of all kinds (*Communicated by Camille Mouchonay-Sirand.*)	2600	9th Oct. 1866	William Edward Gedge.
Apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut.	2808	30th Oct. 1866	Henry Martyn Nicholls.
Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured.	2865	5th Nov. 1866	Thomas Dunnill Clapham.
Improvements in the manufacture of emery and glass cloths, and in dressing and preparing woven fabrics for the same, and also in apparatus for cutting such cloths.	2911	8th Nov. 1866	Richard John Edwards.
Machinery for the manufacture of india-rubber thread.	2966	13th Nov. 1866	Charles Moseley.
Machinery for cutting india-rubber - -	3012	16th Nov. 1866	John Macmillan Dunlop. Frank Crossley.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*severing double velvets.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Machinery or apparatus for manufacturing cardboard or pasteboard.	3127	28th Nov. 1866	George Backhouse.
Machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces - - - - - -	3222	6th Dec. 1866	John Cameron Mac Donald. Joseph Calverley.
For cutting roots, &c. *see* "FOOD FOR CATTLE." For cutting sugar, *see* "SUGAR." For cutting rags for paper-making, *see* "PAPER." For rasping dyewoods, *see* "DYES."			
CYLINDERS, ROLLERS, DRUMS; COVERING ROLLERS.			
Rollers for rolling or crushing land - -	20	3rd Jan. 1866	George Sheppard.
Machinery for rolling hoops or tyres for wheels or other purposes.	30	4th Jan. 1866	Thomas Edward Vickers.
Printing presses known as copper plate presses - (*form of roller.*)	51	6th Jan. 1866	Henry Haley Collins.
Machines for washing, scouring and starching - (*corrugated rollers.*)	63	9th Jan. 1866	Thomas Bradford.
Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.	103	12th Jan. 1866	Josiah Timmis Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Lubricating certain frictional surfaces in steam-engines. (*cylinders.*)	167	18th Jan. 1866	Henry Ashworth.
Machinery for rolling and clod crushing	266	27th Jan. 1866	John Spencer.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*rollers to carriage blinds.*)	369	7th Feb. 1866	Uriah Scott.
Printing machines	393	8th Feb. 1866	William Rock.
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials to be spun.	400	9th Feb. 1866	Joseph Sutcliffe.
Spinning and drawing rollers (*Communicated by Henry Hall, Thomas Finlay and Isaac Schlichter.*)	408	9th Feb. 1866	John Henry Johnson.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving (*elliptical rollers.*)	417	10th Feb. 1866	John Binns. William Binns.
Certain improvements in casting chilled rolls	468	14th Feb. 1866	Frederick Richard Wheeldon.
Improvements in the manufacture of tubes and hollow cylinders, and in the machinery to be employed in the said manufacture.	538	21st Feb. 1866	William Webb.
Machinery for engraving and etching rollers and other surfaces	571	24th Feb. 1866	Robert Leake. Joseph Beckett.
Application of power in actuating rolls in rolling metals	579	24th Feb. 1866	Frederick Charles Winby. Clifford Etches Winby.
Apparatus for calendering, mangling or finishing	643	3rd March 1866	Robert Walker.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Tools for dividing wood into cylinders	654	3rd March 1866	Nathan Thompson.
Arrangement and construction of meters or apparatus for measuring water or other fluids (*lubricating the axis of the drum.*)	733	10th March 1866	Walter Chrimes Myers. Edward Myers.
Machinery for rolling and straightening cylindrical metallic rods and tubes. (*Communicated by Joseph Sidney Seaman.*)	796	17th March 1866	Frederick Collier Bakewell.
A new or improved kind of expanding window-blinds, cornice poles, blind rollers and other window fittings, also picture rods and stair rods.	857	22nd March 1866	Montagu Archdeacon.
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies	901	27th March 1866	William Deakin. John Bagnall Johnson.
Machinery for the manufacture of lozenges, wafers or pastilles of pasty materials.	935	2nd April 1866	Joseph Jules Derriey.

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CUTTING, &c.—*continued.*			
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Machinery for cutting india-rubber - -	3012	16th Nov. 1866	John Macmillan Dunlop. Frank Crossley.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*severing double velvets.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
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Printing machines - - - - - -	393	8th Feb. 1866	William Rock.
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials for spinning.	400	9th Feb. 1866	Joseph Sutcliffe.
Spinning and doubling rollers - - - - (*Communication by Henry Hall, Thomas Finlay and James Schlicker.*)	408	9th Feb. 1866	John Henry Johnson.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - - (*Spiral rollers.*)	417	10th Feb. 1866	[illegible]
Certain improvements in casting chilled rolls -	462	15th Feb. 1866	[illegible]
Improvements in the manufacture of tubes and in draw cylinders and in the machinery to be employed in the said manufacture.	503	21st Feb. 1866	[illegible]
Machinery for engraving and cutting rollers and other surfaces - - - - - -	571	26th Feb. 1866	[illegible]
Application of power in actuating rods in rolling mills - - - - - -	579	27th Feb. 1866	[illegible]
Apparatus for calendering, mangling or finishing -	642	3rd March 1866	[illegible]
The application of a certain material in combination with improved means and appliances for the manufacture of cylinders and other articles where great strength and lightness is required - - - - -	647	3rd March 1866	[illegible]
Tools for dividing wood into cylinders - -	654	3rd March 1866	[illegible]
Arrangement and construction of presses in which the measuring vessel is also formed [illegible] the case of the press.	712	6th March 1866	[illegible]
Machinery for ruling and straightening cylindrical metallic rods and tubes. (*Communication by Joseph Henry Johnson.*)	782	12th March 1866	[illegible]
[illegible]	857	[illegible]	[illegible]
[illegible]	911	[illegible]	[illegible]
[illegible]	985	[illegible]	[illegible]

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Power looms for weaving - - - - (*Communicated by William Breitenstein.*)	951	3rd April 1866	William Edward Newton.
Machinery for washing and drying wool and other fibrous materials - - - - -	984	5th April 1866	John McNaught. William McNaught jun^{r}.
Improvements in drawing and spinning flax, hemp, china grass and other fibre, and in the apparatus therefor.	993	6th April 1866	Jim Billings Fuller.
Moulding pipes, pillars, rollers or other articles of a similar character - - - -	1007	9th April 1866	James Foster. John Hollinrake.
Machinery for engraving and etching rollers and other surfaces - - - - -	1019	10th April 1866	Robert Leake. William Shields. Joseph Beckett.
Certain improvements in connection with sizing machines or tape legs. (*lubricating the cylinders.*)	1070	16th April 1866	Samuel Bennett.
Beetling beams of beetling engines - -	1124	20th April 1866	Colin Mather.
Incurvating or rendering concavo-convex metals, either in a flatted or unflatted state - - - (*cylindrical articles.*)	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An improved steam roller for agricultural purposes	1280	5th May 1866	William Henry Crispin.
Machinery for hammering cylinders and other articles of sheet metal - - - - -	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Mowing-machines - - - - - - (*earthenware drums.*)	1424	19th May 1866	James Bryce Brown.
Manufacture of rolls for rolling metal - -	1477	28th May 1866	Caleb Thomas Hill.
Machinery for burring and cleansing wool and other fibrous substances. (*Communicated by Calvin Luther Goddard.*)	1532	1st June 1866	Alfred Vincent Newton.
Construction of tools for graining and putting in the 'batea' or pores representing different timbers - - - - - - - - (*rollers.*)	1643	19th June 1866	Thomas Chaloner. James Billington.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances. (*drawing rollers.*)	1687	25th June 1866	Edward Gerrard Fitton.
Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes.	1706	27th June 1866	Edward Ambrose.
Pistons and cylinders - - - - -	1711	27th June 1866	Thomas Kennedy junior. James Barr.
Improvements in machinery for preparing and carding and in treating silk waste.	1727	28th June 1866	Samuel Cunliffe Lister.
An improved material for covering rollers used in the various processes of making cotton, linen and other yarns - - - - - -	1741	30th June 1866	James Humber. George Haworth.
Apparatus for washing, wringing and mangling -	1887	20th July 1866	William Burgess.
An improved roller for window-blinds, maps, almanacks and other similar articles.	1893	21st July 1866	William Stamford Davis.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances - -	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (*Communicated by Stephen Oscar Ryder.*)	1922	24th July 1866	William Edward Newton.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton
A new and useful invention having reference to the manufacture of horse-shoes or various other articles.	1999	2nd Aug. 1866	Hazen Jay Batchelder.
Improved means and appliances for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required -	2006	3rd Aug. 1866	William Deakin. John Bagnall Johnson.
Manufacture of coiled iron tubes or cylinders used in the construction of cannon.	2061	10th Aug. 1866	George Wightwick Rendel.
Improvements in the construction of ordnance, partly applicable also to other purposes. (*cylinders.*)	2133	20th Aug. 1866	Walter Weldon.
An improved inking apparatus for printing in colors. (*Communicated by John Knox Lowe.*)	2138	20th Aug. 1866	George Haseltine.
Machinery for making nails - - - (*Communicated by The Excelsior Nail Company.*)	2144	21st Aug. 1866	William Edward Newton.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Machinery and tools for cutting slate, stone, marble and other minerals - - - - -	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.
Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp or wire -	2324	10th Sept. 1866	Peter John Railton. David Walton.
A new or improved compressed air-engine, combined with a new mode and appropriate construction of the engine for preventing the escape of air.	2377	15th Sept. 1866	Anthony Bernhard Baron Von Rathen.
Machinery for turning or cutting and polishing screw nuts and other articles. (*top rollers.*)	2392	18th Sept. 1866	John Thompson.
An improved machine for wringing and mangling -	2440	22nd Sept. 1866	Thomas Atkinson jun^{r}.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
Improvements in the process of casting iron cylinders, or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together.	2518	29th Sept. 1866	Jean Gueunier-Lauriac.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*cylinders.*)	2522	29th Sept. 1866	Joseph Whitworth.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Machinery or apparatus for marking, etching or engraving on cylindrical and other surfaces.	2570	6th Oct. 1866	Henry Garside.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Manufacture of printing rollers or cylinders -	2615	9th Oct. 1866	Edward Peyton.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
An improved machine for washing cloth and clothes.	2688	18th Oct. 1866	James Miller.
Lubricators - - - - - - (*for cylinders.*)	2763	26th Oct. 1866	John Storer.
Improvements in carding-engines and in apparatus for grinding the rollers or cylinders thereof.	2794	29th Oct. 1866	Samuel Faulkner.
Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (*Communicated by Charles B. Hoard.*)	2806	30th Oct. 1866	Alfred Vincent Newton.
An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather - -	2807	30th Oct. 1866	Andrew Fairbairn. Thomas Stuart Kennedy. John William Naylor.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*casting cylinders.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
A new composition applicable to rollers for calico printing and to other purposes.	2955	12th Nov. 1866	George Frederick Freeman.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness. (*rollers for crushing machines.*)	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*rollers.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Machinery or apparatus for opening and cleaning fibrous materials. (*burring cylinder.*) (*Communicated by Charles G. Sargent.*)	3070	22nd Nov. 1866	Richard Edmund Lazonby.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*rollers and beams.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Rolls of spinning, drawing and other machines - (*Communicated by Edward Livingston Perry.*)	3161	1st Dec. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Construction of tools for graining and putting in the 'bates' or pores representing different timbers. (*rollers.*)	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Improvements in apparatus and material for ornamental painting, graining, marbling and such like purposes. (*printing roller.*)	3330	18th Dec. 1866	Thomas Titterington.
Construction of drums, pulleys, "glazers" and cones.	3389	24th Dec. 1866	Joseph Rodgers.
DENTISTRY, ARTIFICIAL TEETH, TOOTH PICKS.			
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Method of and apparatus for fitting artificial teeth and retaining them in position. (*Communicated by Moss Jones.*)	1546	4th June 1866	Maurice Cohen Rogers.
Artificial teeth - - - - - -	1662	22nd June 1866	Thomas Godfrey.
An improved process for the preparation of india-rubber and kindred gums. (*for dental purposes.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
A new or improved instrument to be employed in producing local anæsthesia. (*in dentistry.*)	3011	16th Nov. 1866	Richard Woollatt.
Manufacture of hair, nail, tooth and flesh brushes -	3154	30th Nov. 1866	Henry Paul Truefitt.
DISINFECTING, DEODORISING, PERFUMING.			
Combination of chemical matters, and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*a disinfectant.*)	169	18th Jan. 1866	William Hibbert.
An improved mechanical valve respirator - -	339	3rd Feb. 1866	William Hibbert.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts. (*for disinfecting.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes.	642	3rd March 1866	Victor Larnaudès.
Improved preparation for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*disinfecting.*)	667	5th March 1866	James Gray.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes -	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Machinery for cutting and heading nails - - (*Communicated by Jacob Russell, Henry Townsend M'Coun, James Lemuel Romer and Thomas Townsend Buckley.*)	2942	10th Nov. 1866	John Garrett Tongue.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes - - - - - - (*stone carving.*)	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern.	2975	13th Nov. 1866	William Walker Marston.
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.
An improved machine for cutting sugar cane - (*Communicated by Frederick James Vivian Minchin.*)	3187	4th Dec. 1866	Ferdinand Kohn.
Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class - - - -	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - - - -	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Applying motive-power to saw frames - -	3267	12th Dec. 1866	John Robinson. John Smith.
Machinery for dressing slates - - -	3268	13th Dec. 1866	Henry Wren. John Hopkinson.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*plane irons.*) (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
Machinery for cutting, punching and shaping metals for screw nuts and like articles.	3410	28th Dec. 1866	Francis Watkins.
For cutting or getting coal, *see* "MINING." For cutting dyewoods, *see* "DYES." For cutting files, *see* "FILES AND RASPS." For cutting screws, *see* "NAILS."			
XI.—Cutting Paper, India-rubber and Tobacco; Cutting and Splitting Leather and Cloth.			
Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state - - - -	75	10th Jan. 1866	James Clunan. Noah Nightingale.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Shears or scissors - - - - - (*tailors' shears.*) (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
Machinery for the manufacture of paper bags - (*Communicated by Benjamin Spencer Binney.*)	223	23rd Jan. 1866	William Clark.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (*Communicated by Edwin Blood.*)	437	12th Feb. 1866	Alfred Vincent Newton.
Machinery for cutting the pile of woven fabrics -	446	13th Feb. 1866	John Patterson.
Machinery for making collars, cuffs, wristbands and other similar articles of dress. (*Communicated by Henry Francis Knapp.*)	474	14th Feb. 1866	William Edward Newton.
Improved machinery or apparatus for reducing the thickness of parts of calf skins or of other skins or hides. (*Communicated by Adolphe Bel.*)	493	16th Feb. 1866	William Edward Gedge.
Means of or apparatus to be employed for cutting fustians or other similar fabrics.	515	19th Feb. 1866	Joshua Whalley.
Machinery or apparatus for cutting lace fabrics to make them into bonnet or cap fronts.	597	27th Feb. 1866	Charles Grey Hill.
A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands -	602	27th Feb. 1866	Myer Myers. Maurice Myers. William Hill.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather.	746	12th March 1866	Charles Linford.
Jacquard looms for weaving cut pile fabrics double (*Communicated by Anton Funk, Carl Emil Becker and August Hoffbauer.*)	846	22nd March 1866	Charles Denton Abel.
Leather splitting machines - - - (*Communicated by Amzi Hancen Van Gieson.*)	926	31st March 1866	Edward Thomas Hughes.
Apparatus for fleshing and shaving hides and skins of animals, in the raw, tanned or dressed state.	979	5th April 1866	William Ingham.
Apparatus for producing loom-sewed fabrics - (*cutting the threads.*)	1030	11th April 1866	William Wishart. Peter Cameron.
An improved machine for cutting tobacco for chewing and smoking. (*Communicated by George Washington Hoglen and Stephen Decator Grafflin.*)	1036	12th April 1866	George Haseltine.
Machinery and apparatus used in the manufacture of sheets of india-rubber.	1305	8th May 1866	Charles Moseley.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Machinery for cutting india-rubber - -	1431	21st May 1866	John Macmillan Dunlop.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CUTTING, &c.—*continued.*			
Improvements in machinery for cross raising the pile or nap of woollen and other cloths or fabrics, parts of which said improvements are also applicable to cross cutting machines - -	2297	7th Sept. 1866	Joseph Asquith. John William Asquith.
Machinery for cutting rags, ropes and other articles for paper-making and other purposes - -	2347	12th Sept. 1866	Enoch Harrison Aydon. Ebenezer Pocock.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics -	2350	13th Sept. 1866	Edmund Phillips. James Howie.
Cutting out of boots, shoes and gaiters of all kinds (*Communicated by Camille Mouchonay-Sirand.*)	2600	9th Oct. 1866	William Edward Gedge.
Apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut.	2808	30th Oct. 1866	Henry Martyn Nicholls.
Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured.	2865	5th Nov. 1866	Thomas Dunnill Clapham.
Improvements in the manufacture of emery and glass cloths, and in dressing and preparing woven fabrics for the same, and also in apparatus for cutting such cloths.	2911	8th Nov. 1866	Richard John Edwards.
Machinery for the manufacture of india-rubber thread.	2966	13th Nov. 1866	Charles Moseley.
Machinery for cutting india-rubber - -	3012	16th Nov. 1866	John Macmillan Dunlop. Frank Crossley.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*severing double velvets.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Machinery or apparatus for manufacturing cardboard or pasteboard.	3127	28th Nov. 1866	George Backhouse.
Machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces - - - - -	3222	6th Dec. 1866	John Cameron Mac Donald. Joseph Calverley.
For cutting roots, &c. *see* "FOOD FOR CATTLE." For cutting sugar, *see* "SUGAR." For cutting rags for paper-making, *see* "PAPER." For rasping dyewoods, *see* "DYES."			
CYLINDERS, ROLLERS, DRUMS; COVERING ROLLERS.			
Rollers for rolling or crushing land - -	20	3rd Jan. 1866	George Sheppard.
Machinery for rolling hoops or tyres for wheels or other purposes.	30	4th Jan. 1866	Thomas Edward Vickers.
Printing presses known as copper plate presses - (*form of roller.*)	51	6th Jan. 1866	Henry Haley Collins.
Machines for washing, scouring and starching - (*corrugated rollers.*)	63	9th Jan. 1866	Thomas Bradford.
Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.	103	12th Jan. 1866	Josiah Timmis Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Lubricating certain frictional surfaces in steam-engines. (*cylinders.*)	167	18th Jan. 1866	Henry Ashworth.
Machinery for rolling and clod crushing - -	266	27th Jan. 1866	John Spencer.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*rollers to carriage blinds.*)	369	7th Feb. 1866	Uriah Scott.
Printing machines - - - - -	393	8th Feb. 1866	William Rock.
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials to be spun.	400	9th Feb. 1866	Joseph Sutcliffe.
Spinning and drawing rollers - - - (*Communicated by Henry Hall, Thomas Finlay and Isaac Schlichter.*)	408	9th Feb. 1866	John Henry Johnson.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - (*elliptical rollers.*)	417	10th Feb. 1866	John Binns. William Binns.
Certain improvements in casting chilled rolls -	463	14th Feb. 1866	Frederick Richard Wheeldon.
Improvements in the manufacture of tubes and hollow cylinders, and in the machinery to be employed in the said manufacture.	538	21st Feb. 1866	William Webb.
Machinery for engraving and etching rollers and other surfaces - - - - - -	571	24th Feb. 1866	Robert Leake. Joseph Beckett.
Application of power in actuating rolls in rolling metals - - - - - - -	579	24th Feb. 1866	Frederick Charles Winby. Clifford Etches Winby.
Apparatus for calendering, mangling or finishing -	643	3rd March 1866	Robert Walker.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - - -	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Tools for dividing wood into cylinders - -	654	3rd March 1866	Nathan Thompson.
Arrangement and construction of meters or apparatus for measuring water or other fluids - (*lubricating the axis of the drum.*)	733	10th March 1866	Walter Chrimes Myers. Edward Myers.
Machinery for rolling and straightening cylindrical metallic rods and tubes. (*Communicated by Joseph Sidney Seaman.*)	796	17th March 1866	Frederick Collier Bakewell.
A new or improved kind of expanding window-blinds, cornice poles, blind rollers and other window fittings, also picture rods and stair rods.	857	22nd March 1866	Montagu Archdeacon.
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies - - - - - -	901	27th March 1866	William Deakin. John Bagnall Johnson.
Machinery for the manufacture of lozenges, wafers or pastilles of pasty materials.	935	2nd April 1866	Joseph Jules Derriey.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Power looms for weaving - - - - (*Communicated by William Breitenstein.*)	951	3rd April 1866	William Edward Newton.
Machinery for washing and drying wool and other fibrous materials - - - - -	984	5th April 1866	John McNaught. William McNaught jun^{r}.
Improvements in drawing and spinning flax, hemp, china grass and other fibre, and in the apparatus therefor.	993	6th April 1866	Jim Billings Fuller.
Moulding pipes, pillars, rollers or other articles of a similar character - - - - -	1007	9th April 1866	James Foster. John Hollinrake.
Machinery for engraving and etching rollers and other surfaces - - - - -	1019	10th April 1866	Robert Leake. William Shields. Joseph Beckett.
Certain improvements in connection with sizing machines or tape legs. (*lubricating the cylinders.*)	1070	16th April 1866	Samuel Bennett.
Beetling beams of beetling engines - -	1124	20th April 1866	Colin Mather.
Incurvating or rendering concavo-convex metals, either in a flatted or unflatted state - - - (*cylindrical articles.*)	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An improved steam roller for agricultural purposes	1280	5th May 1866	William Henry Crispin.
Machinery for hammering cylinders and other articles of sheet metal - - - - -	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Mowing-machines - - - - - - (*earthenware drums.*)	1424	19th May 1866	James Bryce Brown.
Manufacture of rolls for rolling metal - -	1477	28th May 1866	Caleb Thomas Hill.
Machinery for burring and cleansing wool and other fibrous substances. (*Communicated by Calvin Luther Goddard.*)	1532	1st June 1866	Alfred Vincent Newton.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - - - - (*rollers.*)	1643	19th June 1866	Thomas Chaloner. James Billington.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances. (*drawing rollers.*)	1687	25th June 1866	Edward Gerrard Fitton.
Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes.	1706	27th June 1866	Edward Ambrose.
Pistons and cylinders - - - - -	1711	27th June 1866	Thomas Kennedy junior. James Barr.
Improvements in machinery for preparing and carding and in treating silk waste.	1727	28th June 1866	Samuel Cunliffe Lister.
An improved material for covering rollers used in the various processes of making cotton, linen and other yarns - - - - - -	1741	30th June 1866	James Humber. George Haworth.
Apparatus for washing, wringing and mangling -	1887	20th July 1866	William Burgess.
An improved roller for window-blinds, maps, almanacks and other similar articles.	1893	21st July 1866	William Stamford Davis.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances - -	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (*Communicated by Stephen Oscar Ryder.*)	1922	24th July 1866	William Edward Newton.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton
A new and useful invention having reference to the manufacture of horse-shoes or various other articles.	1999	2nd Aug. 1866	Hazen Jay Batchelder.
Improved means and appliances for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required -	2006	3rd Aug. 1866	William Deakin. John Bagnall Johnson.
Manufacture of coiled iron tubes or cylinders used in the construction of cannon.	2061	10th Aug. 1866	George Wightwick Rendel.
Improvements in the construction of ordnance, partly applicable also to other purposes. (*cylinders.*)	2133	20th Aug. 1866	Walter Weldon.
An improved inking apparatus for printing in colors. (*Communicated by John Knox Lowe.*)	2138	20th Aug. 1866	George Haseltine.
Machinery for making nails - - - (*Communicated by The Excelsior Nail Company.*)	2144	21st Aug. 1866	William Edward Newton.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Machinery and tools for cutting slate, stone, marble and other minerals - - - - -	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.
Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp or wire -	2324	10th Sept. 1866	Peter John Railton. David Walton.
A new or improved compressed air-engine, combined with a new mode and appropriate construction of the engine for preventing the escape of air.	2377	15th Sept. 1866	Anthony Bernhard Baron Von Rathen.
Machinery for turning or cutting and polishing screw nuts and other articles. (*top rollers.*)	2392	18th Sept. 1866	John Thompson.
An improved machine for wringing and mangling -	2440	22nd Sept. 1866	Thomas Atkinson jun^{r}.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
Improvements in the process of casting iron cylinders, or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together.	2518	29th Sept. 1866	Jean Gueunier-Lauriac.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*cylinders.*)	2522	29th Sept. 1866	Joseph Whitworth.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Machinery or apparatus for marking, etching or engraving on cylindrical and other surfaces.	2570	6th Oct. 1866	Henry Garside.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Manufacture of printing rollers or cylinders -	2615	9th Oct. 1866	Edward Peyton.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
An improved machine for washing cloth and clothes.	2688	18th Oct. 1866	James Miller.
Lubricators - - - - - - (*for cylinders.*)	2763	26th Oct. 1866	John Storer.
Improvements in carding-engines and in apparatus for grinding the rollers or cylinders thereof.	2794	29th Oct. 1866	Samuel Faulkner.
Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (*Communicated by Charles B. Hoard.*)	2806	30th Oct. 1866	Alfred Vincent Newton.
An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather - -	2807	30th Oct. 1866	Andrew Fairbairn. Thomas Stuart Kennedy. John William Naylor.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*casting cylinders.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
A new composition applicable to rollers for calico printing and to other purposes.	2955	12th Nov. 1866	George Frederick Freeman.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness. (*rollers for crushing machines.*)	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*rollers.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Machinery or apparatus for opening and cleaning fibrous materials. (*burring cylinder.*) (*Communicated by Charles G. Sargent.*)	3070	22nd Nov. 1866	Richard Edmund Lazonby.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*rollers and beams.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Rolls of spinning, drawing and other machines - (*Communicated by Edward Livingston Perry.*)	3161	1st Dec. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
CYLINDERS, &c.—*continued.*			
Construction of tools for graining and putting in the 'bates' or pores representing different timbers. (*rollers.*)	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Improvements in apparatus and material for ornamental painting, graining, marbling and such like purposes. (*printing roller.*)	3330	18th Dec. 1866	Thomas Titterington.
Construction of drums, pulleys, "glazers" and cones.	3389	24th Dec. 1866	Joseph Rodgers.
DENTISTRY, ARTIFICIAL TEETH, TOOTH PICKS.			
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Method of and apparatus for fitting artificial teeth and retaining them in position. (*Communicated by Moss Jones.*)	1546	4th June 1866	Maurice Cohen Rogers.
Artificial teeth - - - - - -	1662	22nd June 1866	Thomas Godfrey.
An improved process for the preparation of india-rubber and kindred gums. (*for dental purposes.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
A new or improved instrument to be employed in producing local anæsthesia. (*in dentistry.*)	3011	16th Nov. 1866	Richard Woollatt.
Manufacture of hair, nail, tooth and flesh brushes -	3154	30th Nov. 1866	Henry Paul Truefitt.
DISINFECTING, DEODORISING, PERFUMING.			
Combination of chemical matters, and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*a disinfectant.*)	169	18th Jan. 1866	William Hibbert.
An improved mechanical valve respirator - -	339	3rd Feb. 1866	William Hibbert.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts. (*for disinfecting.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes.	642	3rd March 1866	Victor Larnaudès.
Improved preparation for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*disinfecting.*)	667	5th March 1866	James Gray.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DISINFECTING, &c.—*continued.*			
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes.	921	31st March 1866	James Davis.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures.	922	31st March 1866	James Davis.
Construction and arrangement of apparatus and material for effecting the deodorizing of noxious gases arising from sewers and drains, and for the more effectual ventilation of such sewers and drains.	941	2nd April 1866	Edward Brooke the younger.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses.	1163	25th April 1866	George Edward Noone.
Improvements in deodorizing, revivifying and calcining animal and vegetable charcoal, and in the apparatus employed therein.	1242	2nd May 1866	William Cormack.
Treating india-rubber and india-rubber compounds, and also india-rubber fabrics.	1257	3rd May 1866	Stephen Bourne.
Improvements in the purification of water, and in the disinfection and preservation of putrescent and putrescible matters. (*Communicated by Dr Willy Kühne.*)	2107	16th Aug. 1866	Adolph Kühne.
Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (*Communicated by Jean Baptiste Lahore.*)	2145	21st Aug. 1866	William Edward Newton.
Treating and purifying water - - -	2218	28th Aug. 1866	Robert Irvine.
Apparatus for sanitary purposes - - -	2346	12th Sept. 1866	Thomas Wheelhouse.
Apparatus for receiving, drying and deodorizing human excrement.	2750	24th Oct. 1866	Francis Taylor.
Improvements in the preparation of deodorizing materials, and in the manufacture of gas.	2756	25th Oct. 1866	Henry Phillips.
Arrangements and apparatus for measuring and controlling the supply of water for closets and general uses, and for the deodorisation, removal and utilisation of excrementary matters.	3296	15th Dec. 1866	Thomas Hoey.
Improvements in the manufacture of chlorine, and in preparations for evolving chlorine for disinfecting and other purposes.	3411	28th Dec. 1866	Henry Bollmann Condy.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DISTILLING AND RECTIFYING.			
I.—Alcoholic Distillation, Manufacture of Spirituous Liquors.			
An improved construction of spirit meter - - (*Communicated by Edward Payne.*)	561	23rd Feb. 1866	John Fulleck Hearsey.
Treatment of brewers' and distillers' grains -	565	23rd Feb. 1866	Robert Milburn, jun^{r}. William Henry Baxter.
Improvements and new applications in the manufacture of beer and alcoholic liquids. (*Communicated by Monsieur Charles Tellier.*)	615	28th Feb. 1866	Hector Auguste Dufrené.
Improvements in the means and apparatus employed for evaporating and cooling liquids applicable to various purposes. (*cooling in distilleries.*)	747	12th March 1866	George Severn.
An improved apparatus for mashing malt or grain to be used in the processes of brewing and distilling.	905	28th March 1866	Thomas Ryder.
Preparation and application of malt grains or brewers' refuse as a manure.	949	3rd April 1866	Alfred George Lock.
Improvements in the treatment of grain and raw spirit, and in the apparatus employed therein -	985	5th April 1866	William Rowland Taylor. George Hewett.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains, in order to convert it into a spirit or liquid suitable for manufacturing purposes.	1445	23rd May 1866	Edward Gripper.
An improved spirit meter - - - - (*Communicated by William Murphy.*)	1692	25th June 1866	William Edward Newton.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.
Machinery or apparatus for filtering liquids - (*Communicated by Robert Stewart.*)	2451	24th Sept. 1866	William Edward Newton.
Distilling alcoholic spirits - - - -	2681	17th Oct. 1866	John Slessor.
For distilling water, *see* "FILTERING."			
II.—Bituminous, Resinous and Oleaginous Distillation.			
Distillation - - - - - (*Communicated by Orazio Lugo.*)	31	4th Jan. 1866	William Edward Newton.
Apparatus and process for distilling oils and other liquids. (*Communicated by James Johnston and John Davis.*)	70	9th Jan. 1866	James Marius Macrum.
Apparatus for distilling the grease of cotton seed oil and other fatty matters.	297	30th Jan. 1866	Charles Doughty.
Working and treating india-rubber, gutta-percha and other similar gums. (*distilling.*) (*Communicated by Frank Marquard.*)	300	31st Jan. 1866	William Robert Lake.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DISTILLING, &c.—*continued.*			
Apparatus or machinery for distilling and refining petroleum and other oils.	319	1st Feb. 1866	James Bouverie Grant.
Improved arrangements and apparatus for distilling	461	14th Feb. 1866	Alexander Carnegie Kirk.
Improvements in distilling coal shales and other substances.	478	15th Feb. 1866	James Young.
An improved process of and apparatus for distilling petroleum and other liquid substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.*)	606	27th Feb. 1866	William Edward Newton.
Process of and apparatus for the distillation of tar and other substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.*)	616	28th Feb. 1866	William Edward Newton.
Improvements in distilling coal shales and other substances, and in the apparatus employed therein.	625	1st March 1866	James Young.
An improved apparatus for distilling petroleum and the oils obtained from coal shale and other like substances.	663	5th March 1866	William Aristides Vérel.
Machinery or apparatus for distilling bituminous shale and other bituminous substances of a like nature.	756	13th March 1866	John Frederick Brinjes.
Obtaining illuminating gas - - -	769	15th March 1866	George M'Kenzie.
Process of and apparatus for distilling petroleum and other mineral oils. (*Communicated by Edward Braggins, Matthew Patrick Ewing and Hiram Bond Everest.*)	827	20th March 1866	William Edward Newton.
Means and apparatus for the distillation and rectification of hydro-carbon and other volatile oils.	896	27th March 1866	William Alexander Lyttle.
Distilling - - - - - - -	992	6th April 1866	James Young.
Apparatus used in distilling fatty and other matters	1092	18th April 1866	Charles Mathew Barker.
Improvements in the distillation of coal, shale and other bituminous substances, to obtain oily matters therefrom, also in the redistillation of the products thereby obtained - - -	1278	4th May 1866	William Young. Peter Brash.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom - - - - - - (*see* "HEATING.")	1320	8th May 1866	James Lee Norton. Alfred Giles.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
Improvements in retorts and in the mode of working the same, to obtain crude paraffin and other oils from cannel, coal, bituminous matter, wood, peat, bones or other material.	1600	12th June 1866	James Nicholas.
Apparatus for the treatment of hydro-carbon oils -	1697	26th June 1866	James Young the younger.
Mode of distilling or separating volatile products from oils and other fluids. (*Communicated by Hamilton Lamphier Smith.*)	1710	27th June 1866	William Robert Lake.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DISTILLING, &c.—*continued.*			
Apparatus for distilling the grease of cotton seed oil and other fatty matters.	1778	4th July 1866	Charles Doughty.
Decolorising the products obtained in the distillation of shale, coal and wood, including tar, for the purposes of dipping, pouring and smearing sheep, and thus preserving the purity of color and the healthy condition of the wool.	1838	13th July 1866	James Law.
Treating fatty and oily matters - - -	2110	16th Aug. 1866	George Payne.
Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (*Communicated by Jean Baptiste Lahore.*)	2145	21st Aug. 1866	William Edward Newton.
Apparatus for the distillation of paraffine and petroleum or other hydrocarbon oils - -	2271	4th Sept. 1866	William Cartwright Holmes. Jno. Wm. Perkins.
Manufacture of oil from shale and other bituminous substances - - - - -	2380	17th Sept. 1866	Peter Brash. William Young.
Treatment of the residues resulting from and obtained in the purification and distillation of mineral oils, for the purpose of utilising the same.	2472	25th Sept. 1866	John James Lundy.
An improvement in the process of distilling petroleum and other oils. (*Communicated by Orazio Lugo, and Theodore Otto Ludwig Schrader.*)	2496	27th Sept. 1866	Alfred Vincent Newton.
Process of distilling petroleum and other oils or substances. (*Communicated by Orazio Lugo, and Theodore Otto Ludwig Schrader.*)	2685	17th Oct. 1866	Alfred Vincent Newton.
Improvements in the treatment or distillation of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.	2788	29th Oct. 1866	Charles M'Beath.
Apparatus for the production, distillation and refining of hydro-carbon and other oils from shale, cannel, coal, peat, lignite or other bituminous minerals.	2847	3rd Nov. 1866	Josiah Harris.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam.	3179	3rd Dec. 1866	John Ambrose Coffey.
Preparation and application of certain fatty bodies. (*Communicated by Mathias Paraf-Javal and Eugene Paraf-Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.

See also "GAS."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DOCKS, HARBOURS, BREAKWATERS, PIERS, LANDING-STAGES, CANALS, SEA-WALLS, SUBMARINE WORKS, WEIRS.			
An improved construction of careening basin or graving dock. (*Communicated by Leonard Goursseau, junior.*)	190	20th Jan. 1866	William Edward Gedge.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Travellers for warehouses, factories, building yards and other purposes. (*for construction of docks.*)	411	9th Feb. 1866	William Nathaniel Wynn.
Chains and apparatus used for submarine purposes (*and beams or girders.*)	632	1st March 1866	William Beare Caulfield.
Dredging and elevating machinery - -	704	8th March 1866	Sylvester Franklin Schoonmaker.
Machinery for tunnelling underneath the beds of rivers or watercourses, and through quicksands.	770	15th March 1866	Robert Morton.
Improvements in sinking tubes, cylinders or caissons, for the foundations of piers, lighthouses, quay walls and similar structures, and for the sinking of mine shafts and wells.	995	7th April 1866	Thomas Scott.
Improvements in docks and apparatus connected therewith, parts of which are applicable to floating structures.	1008	9th April 1866	John Macintosh.
Constructing the foundations and abutments of bridges, piers, jetties, retaining walls and other similar works.	1022	10th April 1866	William Douglas Robotham.
An improved method of and apparatus for preserving the banks of rivers and watercourses, or other embankments, from corrosion or wasting. (*Communicated by Charles Nicoli.*)	1328	9th May 1866	William Edward Gedge.
Apparatus for excavating - - - -	1701	26th June 1866	John Milroy.
Means of preserving timber from decay - - (*for piers.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces. (*hydraulic cement.*)	2168	23rd Aug. 1866	William Welch.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*for construction of substructures.*)	2230	29th Aug. 1866	James Davis.
Improvements in raising vessels and in the machinery or apparatus employed therefor.	2547	3rd Oct. 1866	William Dundas Scott.
An improved method of and apparatus for preserving the banks of rivers and watercourses, or other embankments, from corrosion or wasting. (*Communicated by Charles Nicoli.*)	2910	8th Nov. 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Docks, &c.—*continued.*			
An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies, out of harbours, havens, docks, creeks, guts, bars, channels, water-courses, sluices, basins, lakes, ponds, marshes and similar places. (*Communicated by Jean Louis Vergniais and Julien Appollinaire Chéron.*)	2931	10th Nov. 1866	Henri Adrien Bonneville.
Constructing harbours - - - - -	2999	15th Nov. 1866	Thomas Barnabas Daft.
Machinery for submarine excavations - - (*Communicated by Claudius Edward Habicht.*)	3025	17th Nov. 1866	William Edward Newton.
Arrangement and construction of dredgers - - (*excavating harbours, canals, &c.*)	3421	29th Dec. 1866	William Simons. Andrew Brown.
Doors and Gates; Door Furniture.			
Machinery or apparatus for mortising or cutting holes or mortises in wood. (*stiles of doors.*)	377	7th Feb. 1866	Alexander Clark.
Improvements in and relating to fence, gate and telegraph posts - - - - - -	514	19th Feb. 1866	Matthew Andrew Muir. James M'Ilwham.
An improved construction of certain parts of metallic chests, strong rooms, safes, deed boxes, and such like receptacles.	541	21st Feb. 1866	William Deakin.
Iron safes - - - - - - -	552	23rd Feb. 1866	John Coope Haddan. Herbert John Haddan.
Improvements in the construction and mounting of safes, part of which improvements is applicable to shutters and doors of buildings where security is required.	641	2nd March 1866	James Tansley.
Iron safes and strong rooms - - -	685	6th March 1866	John Chubb.
Construction of wrought-iron safes - -	694	7th March 1866	George Price.
Improvements in the doors or covers of safes, strong rooms and other receptacles of property, and parts surrounding such doors or covers -	754	13th March 1866	Joseph Jessop. William Warburton.
Construction of safes - - - -	792	17th March 1866	Thomas Sagar. George Keighley.
Iron safes, strong rooms and doors - -	895	27th March 1866	John Bracher.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting gates, &c.*)	922	31st March 1866	James Davis.
Certain improvements in the construction of safes and other similar depositories.	954	4th April 1866	John Maddocks. William Dunn.
Means employed in attaching knobs to the spindles of mortise and other similar locks or fastenings.	1100	19th April 1866	George Beadon.
Securing door handles - - - -	1356	11th May 1866	John Craig.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Doors, &c.—*continued.*			
Safes, strong rooms, iron doors and their locks -	1390	16th May 1866	Elihu Price. Cyrus Price.
An improved hanging centre or centre stop for doors, gates, swing sashes, blinds and other similar uses.	1465	25th May 1866	John William Hoffman.
Construction of continuous wrought-iron fencing, hurdles and gates.	1505	29th May 1866	William Bayliss the younger.
Safes or receptacles for valuable property - -	1587	11th June 1866	John Baxter. John Hunt.
Construction of safes or strong rooms - -	1598	12th June 1866	Frederick William Kurz.
Improvements in opening, closing and securing windows, doors and shutters, and in the machinery or apparatus employed therefor.	1616	14th June 1866	James Carter.
An improvement in the construction of safes, strong rooms and other similar depositories.	1993	2nd Aug. 1866	Isaac Eldon Chillcott.
An improved and simple method for the working of perpendicular sliding sashes, doors and shutters, or any other perpendicular sliding fittings, by the aid of spring rollers, and the construction of the self-securing moveable beads to admit of such sliding sashes, doors and shutters, or other perpendicular sliding fittings being taken out for the purpose of cleaning or otherwise - - -	2089	15th Aug. 1866	Henry James Petty. Charles Frederick Sayer.
Moveable door screens - - - -	2412	20th Sept. 1866	Charles Henry Chadburn.
Constructon of stiles used in public and private pathways.	2437	22nd Sept. 1866	Godfrey Thring.
Affixing knobs or handles to the spindles of door furniture.	2492	27th Sept. 1866	William Reid Corson.
Iron safes and strong rooms - - -	2856	3rd Nov. 1866	John Chubb. William Henry Chalk.
Method of closing and keeping open at any distance doors and gates, in lieu of using springs, straps or other unsightly arrangements for effecting the purpose - - -	2893	7th Nov. 1866	John Deavin. John Henry Sutton. Martin Deavin.
Improved means of forming joints between sashes, doors, drawers and other structures, and the frames in which they move or are fitted.	2959	12th Nov. 1866	John Richard Cadman.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*gates.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Drains, Sewers, Gutters, Drain Pipes and Tiles; Draining; Stench Traps.			
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*forming drains.*)	286	29th Jan. 1866	James Robertson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DRAINS, &c.—*continued.*			
Apparatus for raising and discharging water or other liquids. (*from ships' holds.*)	435	12th Feb. 1866	Joshua Hargrave.
Construction of pumps - - - - (*for pumping mines.*)	539	21st Feb. 1866	Henry Spink Swift.
Improvements in raising or lifting and forcing water and other liquids, and in the apparatus or mechanism employed therefor. (*for draining.*)	630	1st March 1866	Hugh M'Phail.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid, for the cure of disease among cattle and for other purposes. (*for purifying sewers.*)	642	3rd March 1866	Victor Larnaudès.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from water-closets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*applied to drains.*)	921	31st March 1866	James Davis.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting sewers, &c.*)	922	31st March 1866	James Davis.
Construction and arrangement of apparatus and material for effecting the deodorizing of noxious gases arising from sewers and drains, and for the more effectual ventilation of such sewers and drains.	941	2nd April 1866	Edward Brooke the younger.
Constructing the foundations and abutments of bridges, piers, jetties, retaining walls and other similar works. (*drains.*)	1022	10th April 1866	William Douglas Robotham.
An improved system of drainage for the dwellings of towns and other localities, and apparatus employed in connection therewith. (*Communicated by Johann Peter Wilhelm Schmick.*)	1037	12th April 1866	Charles Denton Abel.
Improved apparatus for ejecting water from the holds of steam ships or other vessels.	1142	23rd April 1866	Henry Alfred Huzzey.
Draining and consolidating cuttings, embankments and other parts of railways.	1175	26th April 1866	John Curtis.
Improvements in elevating and forcing water and other fluids, and in the machinery or apparatus connected therewith. (*draining mines.*)	1346	10th May 1866	Julian Bernard.
Motive-power engines, parts of which are specially adapted for raising and forcing water and for other mining purposes.	1401	17th May 1866	Julian Bernard.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DRAINS, &c.—*continued.*			
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture. (*for conveying sewage.*)	1698	26th June 1866	Charles Forster Cotterill.
Improvements in apparatus for raising and forcing water and other liquids, applicable to the ejection of bilge water from vessels, the filling of the tanks of locomotive tenders and other purposes. (*Communicated by Henry Seagur Lansdell.*)	1717	27th June 1866	William Edward Newton.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes - - - (*ejecting bilge water, ventilating sewers, &c.*)	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Apparatus applicable to sewers and drains, for separating the fluid and solid parts of sewage.	1820	11th July 1866	Charles Edward Austin.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture. (*for conveying sewage.*)	2059	10th Aug. 1866	Charles Forster Cotterill.
Improvements in pumps and in adapting them for propelling vessels and for other purposes - (*bilge pumps.*)	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Apparatus for sanitary purposes - - - (*disinfecting drains.*)	2346	12th Sept. 1866	Thomas Wheelhouse.
Improved apparatus for discharging bilge water from vessels' holds - - - -	3176	3rd Dec. 1866	August Hermann. Henry Brethauer.
An improved stench trap - - - -	3332	19th Dec. 1866	Samuel Buxton.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*ditching and trenching.*) (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
Screw valves - - - - (*for discharging water from boats.*) (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.
Machinery for applying hydraulic power to mining and other purposes - - - - (*for drains.*)	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
DRAMATIC AND SCENIC EFFECTS, ILLUSORY EXHIBITIONS, STAGE SCENERY, FLOAT LIGHTS.			
A new or improved apparatus or device for producing theatrical or stage illusions - -	184	20th Jan. 1866	George Tanner. George Parkes.
Apparatus to be employed in illusory exhibitions -	442	13th Feb. 1866	Alfred Stoddart.
Apparatus to be employed in illusory exhibitions -	689	7th March 1866	Alfred Stoddart.
A new or improved kind of perforated elastic-faced cellular target. (*for theatrical purposes.*)	1491	29th May 1866	Joseph Hall.
An improved float light - - - -	2301	7th Sept. 1866	Coleman Defries.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DRAMATIC EFFECTS, &c.—*continued.*			
Apparatus for lighting the floats of lights in theatres and other places - - -	2318	10th Sept. 1866	William Vincent. George Richard Westcott.
Apparatus for lighting and heating - - - (*for theatres.*) (*Communicated by Jean Baptiste Marie Amédée Bourreiff.*)	2755	25th Oct. 1866	Clinton Edgcumbe Brooman.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes. (*for theatrical decorations.*)	2937	10th Oct. 1866	Gustave Josse.
An improved method or mode of producing optical illusions for dramatic and other like exhibitions.	3110	26th Oct. 1866	William Henry Harrison.
DRYING, EXPRESSING MOISTURE.			
Mode of and apparatus for extracting liquor from macerated fibres employed in the manufacture of paper.	69	9th Jan. 1866	William Anderson.
Improvements in drying and cleaning grain, and in apparatus to be used for these purposes.	109	12th Jan. 1866	Robert Twiss Sutton.
Cases or apparatus for drying moulds - -	231	24th Jan. 1866	Matthew Hodgson Lishman. Edward Chambers.
Machinery or apparatus for sizing or preparing yarns or warps to be woven - - -	271	27th Jan. 1866	Samuel Cook. William Henry Hacking.
Preparing linen yarn - - - - - (*drying.*)	488	15th Feb. 1866	Colin Mather.
Improvements in the manufacture of peat fuel and in the machinery employed therein.	545	22nd Feb. 1866	John Dickinson Brunton.
Improved means or apparatus for drying steam, also for heating the feed water of stationary boilers - - - - -	650	3rd March 1866	Joseph Pollit. Eustace Wigzell.
Machinery and apparatus employed in the manufacture of waterproof and other fabrics.	782	16th March 1866	Thomas Briggs, Junr.
Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state - - - -	824	20th March 1866	Thomas Nesham Kirkham. Vernon Francis Enson. Hiram Brook.
Means or apparatus for drying and stentering woven fabrics.	844	22nd March 1866	John McNab.
An improved mode of treating waste liquors for the dissipating or utilizing of the same - (*obtaining vapour and gases for drying.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
Treatment of sugar - - - - (*Communicated by François Joseph Chauvin and Frederic Mathurin Légal the younger.*)	960	4th April 1866	John Henry Johnson.
Machinery for washing and drying wool and other fibrous materials - - - -	984	5th April 1866	John McNaught. William McNaught, junr.
Certain improvements in machinery or apparatus for stiffening, drying, stretching and finishing cotton and silk woven fabrics.	1126	21st April 1866	Joseph Ormrod Ramsbottom.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DRYING, &c.—*continued.*			
Improved apparatus for draining or drying steam previous to its employment for working steam-engines or for other purposes. (*Communicated by August Heinrich Cornelius Backmann.*)	1308	8th May 1866	William Ireland.
Improvements in machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (*Communicated by James Foley.*)	1326	9th May 1866	John Henry Johnson.
Machinery for hammering cylinders and other articles of sheet metal - - - (*for drying machines.*)	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein - - -	1450	23rd May 1866	John Longbottom. James Eastwood.
Improvements in the manufacture of malt and in apparatus for drying malt and hops.	1559	6th June 1866	William Lawrence.
Construction of furnaces and kilns - - - (*for drying peat.*) (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
Improvements in burning and drying bricks, pottery, earthenware, clay, lime and cement, and in the apparatus employed therein.	1794	7th July 1866	Robert Kunstmann.
Machines for winding or warping and drying yarns.	1911	23rd July 1866	Thomas Andrews.
Machinery or apparatus for staining or coating the surfaces of paper with color or other material	2005	3rd Aug 1866	Thomas Campbell. Henry Coffey.
Machinery or apparatus for drying or otherwise treating grain and other substances.	2376	15th Sept. 1866	William Creasy.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.
Improvements in drying and ventilating corn and other agricultural produce, and in apparatus therefor.	2433	21st Sept. 1866	George Dyson.
Improvements in the construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hot-houses and drying houses - - -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Improvements in drying solid substances and in the apparatus or means employed therein.	2453	24th Sept. 1866	Robert Kunstmann.
Apparatus for elevating or conveying yarns or similar materials. (*in drying chambers.*)	2465	25th Sept. 1866	Alexander Steven.
An improved mode of and apparatus for drying corn and other agricultural produce, in the straw.	2486	26th Sept. 1866	John Yeldham Betts.
Improvements in machinery or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus.	2567	5th Oct. 1866	Frederick Hills Schröder.
An improved system or process of treating animal charcoal used in the purification of sugar, and also improved apparatus to be employed in such process.	2571	6th Oct. 1866	George Gordon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DRYING, &c.—*continued.*			
Machines for making paper. (*Communicated by Richard Smith and Oliver Ellsworth.*)	2728	23rd Oct. 1866	John Henry Johnson.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*using heated air for drying.*)	2744	24th Oct. 1866	Joseph Watts.
Apparatus for receiving, drying and deodorizing human excrement.	2750	24th Oct. 1866	Francis Taylor.
Improvements in finishing woven fabrics and in the machinery to be employed therefor. (*drying and stretching.*)	2896	7th Nov. 1866	John Erskine Brown.
Machines for drying wool, corn, grain and other substances - - - - - -	2913	8th Nov. 1866	Alfred Giles. Thomas Sturgeon.
Stretching woven fabrics during the processes of stiffening, sizing, drying or finishing them -	2956	12th Nov. 1866	James Bentley. William Hampson.
Improvements in apparatus for drying hay and other cut crops, also in apparatus for raising or elevating the same.	3036	19th Nov. 1866	William Alfred Gibbs.
Improvements in drying tan and in the machinery or apparatus employed for that purpose. (*Communicated by Laurent Bréval.*)	3042	20th Nov. 1866	Charles Denton Abel.
Machinery or apparatus for manufacturing card-board or pasteboard.	3127	28th Nov. 1866	George Backhouse.
An improved method or methods of treating coffee and tea for general uses.	3131	28th Nov. 1866	William Pidding.
Improvements in means or apparatus for drying wheat, barley, rice and other grain, which improvements are also applicable to the drying of seeds, coffee and other matters - -	3377	22th Dec. 1866	Algernon Sydney Ayre. Horatio Harriman Ayre.
An improved drying apparatus - - (*Communicated by Gilbert Daniel Jones.*)	3408	28th Dec. 1866	Alfred Vincent Newton.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes. (*drying clothes.*)	3453	31st Dec. 1866	Frederic Pelham Warren.
DYEING TEXTILE FABRICS, YARNS AND MATERIALS; FIXING COLOURS; MORDANTS.			
Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (*Communicated by Felix Boutellas Desmoulins.*)	189	20th Jan. 1866	William Edward Gedge.
A machine for 'saving,' or covering the lists or edges of fabrics. (*in dyeing.*)	238	24th Jan. 1866	George Hinchliffe.
An improved mode of treating fur, wool and hair - (*for dyeing.*) (*Communicated by Alfred Clark Brush.*)	264	26th Jan. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DYEING, &c.—*continued.*			
Certain improvements in the treatment of yarns or threads previously to dyeing them.	314	1st Feb. 1866	James Mallison.
Furnaces for steam-boilers and for other purposes (*for dye works.*)	336	3rd Feb. 1866	Thomas Molden.
Process of dyeing and manufacture of textile fabrics	345	3rd Feb. 1866	Francis Bryan Baker.
An improvement in the treatment of rami or rhea fibre, commonly called and known as China or India grasses (*for dyeing.*)	357	6th Feb. 1866	Peter Augustin Godefroy. John William Mott.
Bleaching, dyeing, printing and sizing cotton and other yarns or threads.	468	24th Feb. 1866	James Barlow.
Producing ornamental designs in color upon woollen, silk, cotton and other fabrics.	511	17th Feb. 1866	Joseph Greenhalgh.
Dyeing and printing textile fabrics or yarns	793	17th March 1866	William Dancer.
Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state	824	20th March 1866	Thomas Nesham Kirkham. Vernon Francis Enson. Hiram Brook.
Dyeing and printing textile fabrics and yarns	897	27th March 1866	James Higgin.
Manufacture of leather cloth (*colouring.*)	907	29th March 1866	Thomas Storey. William Virgo Wilson.
Printing and dyeing textile fabrics and yarns	1174	26th April 1866	Alfred Paraf.
Machinery or apparatus to be employed in dyeing yarns. (*Communicated by Albert Wever.*)	1440	22nd May 1866	William Edward Newton.
Dyeing, printing and other operations based on chemical reactions. (*Communicated by Mathias Paraf-Javal.*)	1537	2nd June 1866	Alfred Paraf.
Fixing coloring matters on textile fabrics, yarns or other materials.	1642	19th June 1866	Alfred Paraf.
Preparing wool or other animal fibrous substances, yarns and woollen fabrics, for dyeing.	1680	23rd June 1866	Alfred Lee.
Improved apparatus for treating corn and other materials. (*or for dyeworks.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Improved methods and apparatus for steeping, boiling, bleaching and dyeing fibrous materials.	1881	19th July 1866	William Tongue.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
Deoxidation and precipitation (*Communicated by Mathias Paraf-Javal.*)	1978	1st Aug. 1866	Alfred Paraf.
Use and application of an inorganic glyceric ether (*as a dunging salt.*)	2115	17th Aug. 1866	Alfred Paraf.
Treating and purifying water (*from dye works.*)	2218	28th Aug. 1866	Robert Irvine.
Apparatus for elevating or conveying yarns or similar materials. (*in Turkey red dyeing.*)	2465	25th Sept. 1866	Alexander Steven.
Improvements in the method and means of cleansing textile and other fabrics and materials, also in the method and means of cleansing and preparing textile and other fabrics and materials to be dyed, or printed and dyed.	2967	13th Nov. 1866	William Stevenson Macdonald.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DYEING, &c.—*continued.*			
Machinery for wringing yarns	2995	15th Nov. 1866	John Nichols.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*for fixing dyes.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects. (*dyeing.*) *See also* "DYES."	3341	20th Dec. 1866	Walter Gilbey.
DYES AND PRINTING-COLOURS.			
Manufacture of red coloring matter or dye	341	3rd Feb. 1866	John Holliday.
An improved dye	525	20th Feb. 1866	James Barry.
Preparing purple and blue colouring matters	732	10th March 1866	George Phillips.
A new process for obtaining aniline yellow	904	28th March 1866	Adolphe Antoine Jaeger.
An improved process for obtaining colouring matters from aniline.	938	2nd April 1866	Antoine Louis Marie Guétat.
A new process for obtaining aniline red	988	5th April 1866	Adolphe Antoine Jaeger.
Treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
Preparation of diphenylamine and analogous substances	1093	18th April 1866	Charles Adam Girard. George de Laire.
Manufacture of blue coloring matters suitable for dyeing and printing.	1107	19th April 1866	Edward Chambers Nicholson.
Obtaining green colouring matters of various shades for dyeing and printing. (*Communicated by Henrich Minhorst and Friedrich Wilhelm Schultes.*)	1340	10th May 1866	Read Holliday.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
Obtaining and preparing coloring matter for printing, dyeing and other purposes.	1657	20th June 1866	Johannes Möller.
Improvements in the manufacture of certain alkaloids derived from aniline and its homologues, and in their transformation into coloring matters suitable for dyeing and printing. (*Communicated by Alcide Poirrier and Charles Chappat.*)	1912	23rd July 1866	George Tomlinson Bousfield.
Preparation of bodies in which nitrogen is substituted for hydrogen (*obtaining colouring matters.*)	1956	28th July 1866	Peter Griess. Heinrich Caro.
Production of green coloring matters for dyeing and printing textile fabrics and yarns	2083	14th Aug. 1866	James Alfred Wanklyn. Alfred Paraf.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
DYES, &c.—*continued.*			
Preparation of coloring matters	2153	22nd Aug. 1866	Heinrich Caro.
Manufacture of green and blue coloring matters (*Communicated by Alcide Poirier and Charles Chappat, fils.*)	2669	16th Oct. 1866	George Tomlinson Bousfield.
Manufacture of blue coloring matter (*Partly communicated by George de Laire.*)	2686	17th Oct. 1866	Charles Adam Girard.
Improvements in the method and means of cleansing textile and other fabrics and materials, also in the method and means of cleansing and preparing textile and other fabrics and materials to be dyed, or printed and dyed. (*cleansing mordants.*)	2967	13th Nov. 1866	William Stevenson Macdonald.
Manufacture of green coloring matter (*Communicated by Jules Albert Schlumberger.*)	3152	30th Nov. 1866	William Clark.
Manufacture of colouring matters (*Communicated by Charles Lauth.*)	3195	5th Dec. 1866	Clinton Edgcumbe Brooman.
Treating aniline colors for dyeing and printing	3326	18th Dec. 1866	Ludwig Schad.
Certain improvements in the manufacture of the extract of madder. (*Communicated by M. Jules Pernod.*)	3386	24th Dec. 1866	Hector Auguste Dufrené.
EARTHENWARE AND PORCELAIN; POTTERY-KILNS; POTTERS' GLAZES; CERAMIC WARES; TERRA COTTA.			
Improved self acting jiggers, lathes and wheels for potters' use and other purposes	129	15th Jan. 1866	William Holdcroft. Josiah Wood.
Improvements in moulding articles of clay, earthenware or porcelain, and in apparatus used therein.	344	3rd Feb. 1866	Robert Jobson.
Apparatus for manufacturing dishes, plates and other similar articles from pulverized clay or dust, or other suitable materials	358	6th Feb. 1866	William Boulton. Joseph Worthington.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware	399	9th Feb. 1866	Edward Bevan. Abel Fleming
Improvements in preparing clay, dust and similar materials, for making earthen and other ware, and in machinery for moulding hollow articles in earth, clay and other like materials.	402	9th Feb. 1866	Robert Williams Armstrong.
Improvements in photography and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*for figuring porcelain.*) (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Driving "jiggers," lathes and throwing-wheels used by potters.	547	22nd Feb. 1866	Elias Leak.
Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith. (*seggars, &c.*)	576	24th Feb. 1866	Thomas Spencer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
EARTHENWARE, &c.—*continued.*			
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*for burning pottery.*) (*Communicated by Jakob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Mowing-machines - - - - - (*earthenware drums.*)	1424	19th May 1866	James Bryce Brown.
Improved apparatus for treating corn and other materials. (*or for potteries.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture.	1698	26th June 1866	Charles Forster Cotterill.
Construction of furnaces and kilns - - (*for baking pottery.*) (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
Improvements in burning and drying bricks, pottery, earthenware, clay, lime and cement, and in the apparatus employed therein.	1794	7th July 1866	Robert Kunstmann.
Improvements in waterproofing textile fabrics and in preserving leather, cork, wood and vulcanized india-rubber, also terra cotta, stucco, brick and like substances.	2084	14th Aug. 1866	Charles Francis Baxter.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*imparting strength to earthen vessels.*)	2230	29th Aug. 1866	James Davis.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods. (*drying goods for potteries.*)	2416	20th Sept. 1866	Andrew Barclay Walker.
A chemical decoration on gold, silver and other similar metals and colours, on porcelain, glass-wares, crystal-wares, delft-wares, potters' wares and similar matters, called 'Grüne's proceeding.'	3002	15th Nov. 1866	Wilhelm Grüne.
Improved means and machinery for the manufacture of earthenware and other articles made from plastic materials - - - - -	3120	27th Nov. 1866	John Henry Atterbury. Sydney Woolf.
An improved drying apparatus - - - (*clay.*) (*Communicated by Gilbert Daniel Jones.*)	3408	28th Dec. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ELECTRICITY, GALVANISM AND MAGNETISM, AND THEIR APPLICATION.			
Apparatus to be used for protecting property from fire and thieves.	96	11th Jan. 1866	William Atkins Rudling.
An improvement in spring tops - - - (*magnetising.*) (*Communicated by Hippolyte Huriaux and Lucien Faille.*)	119	13th Jan. 1866	Richard Archibald Brooman.
Stopping and preventing slip from wet rails of locomotives and railway trains, and stopping carriages generally, and equalising force without fly wheels.	127	15th Jan. 1866	Thomas Comfield the younger.
Construction of electric clocks - - - (*Communicated by Max Levin.*)	136	15th Jan. 1866	Alfred Vincent Newton.
Apparatus for catching fish - - - (*employing electro-magnetic light.*)	193	20th Jan. 1866	Alexander Bryson.
Electro-magnetic engines for obtaining and applying motive-power.	311	31st Jan. 1866	William Darlow.
Galvanic batteries for keeping up constant currents of electricity, for railway train signals and electric telegraphic purposes - - - - -	338	3rd Feb. 1866	Albert Horwood. Charles Brumfit.
Electric intercommunication in railway trains -	347	5th Feb. 1866	Charles Vincent Walker.
Electric clocks - - - - - -	549	22nd Feb. 1866	Henry Bright.
Means and apparatus for producing and applying galvanic currents.	582	24th Feb. 1866	Isac Louis Pulvermacher.
An improved fire alarm - - - -	662	5th March 1866	John Crean. Charles Joseph Barr.
Piles for generating electricity - - -	670	5th March 1866	George Lionel Léclanché.
Certain improvements in safes or similar depositories.	717	9th March 1866	Thomas Bewsher Moxon.
Magnetic engines - - - - - -	726	9th March 1866	Lieut.-Colonel James Baker.
Protecting iron ships and other submerged structures from corrosion and fouling.	774	15th March 1866	Martyn John Roberts.
An improved electrical indicator - - -	883	24th March 1866	Walker Moseley.
Galvanic batteries - - - - - -	885	24th March 1866	Walker Moseley.
Electro-magnetic power engines - - - (*Communicated by William Henry Read.*)	931	31st March 1866	William Read.
Improvements in galvanic batteries and in the modes of applying the same to electro-motive power and other engines.	947	3rd April 1866	Charles Frederic Carlier.
Improvements in train inter-communication, parts of the invention being applicable to other purposes - - - - - - -	966	5th April 1866	Samuel Manley Martin. Samuel Alfred Varley.
An improved method or means to be employed for preventing and curing disease in cattle.	976	5th April 1866	Edward Ellison.
Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (*Communicated by Louis Bataille.*)	1079	17th April 1866	Clinton Edgcumbe Brooman.
Thermo-electric batteries - - - -	1135	21st April 1866	Lieutenant-Colonel James Baker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ELECTRICITY, &c—*continued.*			
New or improved machinery for making impressions or forming moulds for stereotype or electrotype plates.	1186	27th April 1866	Mortimer Nelson.
Preventing corrosion and fouling of iron ships -	1209	28th April 1866	William Peter Piggott.
Producing designs upon wood and other materials, by the aid of photography.	1315	8th May 1866	Walter Bentley Woodbury.
Improvements in the means of and apparatus for preserving animal and vegetable substances from decomposition or decay, and for the conveyance and transport of the same.	1349	10th May 1866	Donald Nicoll.
Self-acting fire-arms - - - - - (*Communicated by Charles Dion.*)	1376	14th May 1866	John Henry Johnson.
An improved method of obtaining surfaces for printing from, stereotyping and electrotyping.	1380	15th May 1866	James Cheverton.
Improvements in and connected with thief and fire proof safes.	1387	16th May 1866	John Sacheverell Gisborne.
Gas pyrometers, which may also be employed as thermometers. (*Communicated by Joseph Jean Marie Durand and Celestin Pichoin.*)	1470	26th May 1866	Baldwin Fulford Weatherdon.
Electro-magnetic striking attachments for paper ruling machines. (*Communicated by Maltby Kingston Pelletreau and Ellicott David Averell.*)	1569	7th June 1866	John Garrett Tongue.
Voltaic piles - - - - - - -	1637	16th June 1866	George Lionel Léclanché.
A new application of the electric light for lighting buoys of every description.	1651	20th June 1866	Adolphe Miroude.
Thermo-electric magnetic batteries and engines -	1718	27th June 1866	Lieutenant-Colonel James Baker.
Electric telegraph apparatus - - - - (*lightning protectors.*)	1867	17th July 1866	Cornelius Varley. Samuel Alfred Varley.
Apparatus for accelerating the generation and transmission of electricity.	1878	19th July 1866	Joseph Pierre Gillard.
Mode of and apparatus for increasing the adhesion of locomotive engine wheels to their rails.	2015	4th Aug. 1866	Angelo Vescovali.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces. (*electric magnetic compositions.*)	2168	23rd Aug. 1866	William Welch.
Softening, disintegrating and bleaching vegetable fibres.	2236	30th Aug. 1866	James Montague Mellor.
Improvements in the construction of electric clocks and in the means employed in working the same. (*Communicated by Ernest Van Bruyssel.*)	2285	5th Sept. 1866	Alfred Vincent Newton.
Transmitting facsimile copies of writings and drawings, by means of electric currents. (*Communicated by Bernard Meyer.*)	2480	26th Sept. 1866	Henry Adrien Bonneville.
Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (*Communicated by Alfred Ely Beach.*)	2491	26th Sept. 1866	William Clark.
Certain new and useful improvements in electrical apparatus. (*Communicated by George Lionel Leclanché.*)	2623	10th Oct. 1866	Alexander Horace Brandon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ELECTRICITY, &c.—*continued.*			
Improvements in galvanic batteries, and in apparatus for testing the insulation of telegraphic conductors.	2836	1st Nov. 1866	Owen Rowland.
Improved automatic means and apparatus to give warning of the dangerous existence of fire in warehouses, ships and other structures and places.	2862	3rd Nov. 1866	John Sacheverell Gisborne.
Mariners' and other compasses - - -	2863	3rd Nov. 1866	John Sacheverell Gisborne.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes - - -	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
Certain improvements in apparatus for rendering the security of safes and other depositories more effectual - - - - - - -	2894	7th Nov. 1866	Walter Goodbrand. Thomas Eccles Holland.
Apparatus for testing the lubricity of oils and other lubricants - - - - - -	2953	12th Nov. 1866	James Ingram. Heinrich Stapfer.
Magnetic engines - - - - - -	3039	19th Nov. 1866	Lieutenant-Colonel James Baker.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Electric signals for use on railways - -	3089	24th Nov. 1866	Edward Funnell.
Preparation of printing surfaces by the aid of photography.	3113	26th Nov. 1866	Robert Henelade Courtenay.
Means and apparatus for indicating the time and distance travelled by vehicles. (*Communicated by Jules Henry Delaunay.*)	3124	27th Nov. 1866	William Clark.
Machinery or apparatus for obtaining motive-power.	3125	27th Nov. 1866	Richard George.
An improved apparatus for the automatical performance of music on pianos, organs and other keyed instruments of like description. (*Communicated by Juan Amann.*)	3169	3rd Dec. 1866	Marc Antoine François Mennons.
Improvements in machinery or apparatus for the prevention of collisions and other accidents on railways, and for generally promoting increased safety in railway travelling.	3191	4th Dec. 1866	William Edward Hickling.
Electro-magnetic and magneto-electric machines -	3209	6th Dec. 1866	Henry Wilde.
Electro-magnetic apparatus for obtaining motive-power. (*Communicated by Etoi Poitevin.*)	3224	6th Dec. 1866	William Clark.
Improved apparatus and automatic figures capable of performing various gymnastic feats -	3278	13th Dec. 1866	John Henry Pepper. Seraphicus Francis Pichler.
Certain improvements in facilitating communication between passengers and guard on railways.	3287	14th Dec. 1866	Albert Whitford Hosking.
Apparatus for attracting, exciting and distributing in various directions rapid successions of electric currents derived from the voltaic pile or other electric apparatus. (*electro-polyphore.*)	3298	15th Dec. 1866	Joseph Pierre Gillard.
Thermo-electric and magnetic apparatus - -	3351	20th Dec. 1866	Lieut'. Colonel James Baker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ELECTRICITY, &c.—*continued.*			
Means and apparatus for generating electricity -	3394	24th Dec. 1866	Cornelius Varley. Samuel Alfred Varley.
New or improved means for the prevention of rot in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (*protecting by lightning rods.*) (*Communicated by John Francis Bennett.*)	3403	28th Dec. 1866	Charles Denton Abel.
For electric telegraphs, *see* "TELEGRAPHS." For magnetic compasses, *see* "COMPASSES." *See also* "ELECTRO-PLATING."			
ELECTRO-PLATING AND GALVANISING; DEPOSITING METAL BY ELECTRICITY.			
Apparatus for generating steam or heating liquids - - - - - - (*galvanizing water tubes.*)	1694	25th June 1866	Edward Field. Francis Wise.
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Coating and recovering metals from chlorides and other solutions of metals.	2095	15th Aug. 1866	James Webster.
Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials. (*galvanizing.*)	2431	21st Sept. 1866	James Clark.
Preparation of printing surfaces by the aid of photography.	3113	26th Nov. 1866	Robert Henelade Courtenay.
Obtaining useful products from certain materials produced in the process of galvanising or coating iron with zinc.	3118	27th Nov. 1866	Charles Crockford.
Certain improvements in the construction of locks and keys.	3441	31st Dec. 1866	Herbert Allman.
EMBOSSING, PRODUCING RAISED PATTERNS.			
Apparatus for embossing in colours on paper, envelopes or other articles - - -	296	30th Jan. 1866	John Ingram. John Gough.
A machine for cutting, stamping and embossing paper, card board, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.	423	10th Feb. 1866	John Pinches.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
EMBOSSING, &c.—*continued.*			
Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (*and embossing.*) (*Communicated by Edwin Blood.*)	437	12th Feb. 1866	Alfred Vincent Newton.
Production of copper or other metallic plates for the purpose of printing therefrom. (*relievo patterns.*) (*Communicated by Francis Kossuth and Louis Theodore Kossuth.*)	449	13th Feb. 1866	Charles Gilpin M.P.
Improvements in photography, and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*in relief.*) (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Machinery for making collars, cuffs, wristbands and other similar articles of dress. (*Communicated by Henry Francis Knapp.*)	474	14th Feb. 1866	William Edward Newton.
Production of ornamental surfaces for jewellery and other purposes.	505	17th Feb. 1866	Walter Bentley Woodbury.
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling.	779	15th March 1866	Thomas Goulston Ghislin.
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
Dress fastenings and ornaments - - - (*imitation cameos, &c.*)	1131	21st April 1866	John George Taylor.
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state - -	1140	23rd April 1866	Michael Spiquel. Eugène Henry Florange.
Producing designs upon wood and other materials, by the aid of photography.	1315	8th May 1866	Walter Bentley Woodbury.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbell Dallas.
An improved method of obtaining surfaces for printing from, stereotyping and electrotyping. (*in relief.*)	1380	15th May 1866	James Cheverton.
Manufacture of paper hangings - - - (*cold embossing.*)	1447	23rd May 1866	Paul Marie Balin.
Shaping metals and other ductile materials - (*raising embossed surfaces.*)	1926	25th July 1866	Jasper Henry Selwyn.
A new or improved method of printing or applying designs in relief and brilliancy to all kinds of fabrics.	2719	22nd Oct. 1866	Francois Petitdidier.
Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured.	2865	5th Nov. 1866	Thomas Dunnill Clapham.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes.	2937	10th Nov. 1866	Gustave Josse.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*relief work.*)	2975	13th Nov. 1866	William Walker Marston.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
EMBOSSING, &c.—*continued.*			
Improvements in the manufacture of tubes and other articles, and in the apparatus employed therein. (*imparting designs partly raised.*)	2985	14th Nov. 1866	Hesketh Hughes.
Preparation of printing surfaces by the aid of photography. (*intaglio plates.*)	3113	26th Nov. 1866	Robert Henelade Courtenay.
Obtaining basso-relievo or other such designs in relief and also in depression, by the aid of photography.	3177	3rd Dec. 1866	David Winstanley jun^{r}.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects. (*embossing.*)	3341	20th Dec. 1866	Walter Gilbey.
Producing printing surfaces and carvings from moulds obtained by the aid of photography. (*dies for embossing; cameos.*)	3393	24th Dec. 1866	Robert Howe Ashton.
ENAMELLING, ENAMELS.			
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*ash for enamelling.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Working and treating india-rubber, gutta-percha and other similar gums. (*to imitate enamel.*) (*Communicated by Frank Marquard.*)	300	31st Jan. 1866	William Robert Lake.
Certain improvements in preventing oxidation, as also the fouling of the lower parts of iron-built ships, which said improvements are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood. (*using glass enamel.*)	352	5th Feb. 1866	John Russell.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last-named improvements are also applicable to other purposes. (*enamelling tea-pot handles.*)	740	10th March 1866	Philip Henry Ashberry.
Mowing-machines - - - - - (*coating rollers with enamel.*)	1424	19th May 1866	James Bryce Brown.
Machinery for burnishing or polishing enamelled paper. (*Communicated by Edwin Blood.*)	1921	24th July 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ENAMELLING, &c.—*continued.*			
The application of enamel to certain friction surfaces of looms for weaving. (*Communicated by Edmond Sée and Paul Sée.*)	2650	13th Oct. 1866	Louis Rudolph Bodmer.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*enamelling boilers and retorts.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
ENGRAVING AND ETCHING, PRODUCING SUNK DEVICES.			
Production of copper or other metallic plates for the purpose of printing therefrom. (*intaglio patterns.*) (*Communicated by Francis Kossuth and Louis Theodore Kossuth.*)	449	13th Feb. 1866	Charles Gilpin M.P.
Improvements in photography, and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*sunk designs.*) (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Production of ornamental surfaces for jewellery and other purposes.	505	17th Feb. 1866	Walter Bentley Woodbury.
Machinery for engraving and etching rollers and other surfaces - - - - (*pentagraphs.*)	571	24th Feb. 1866	Robert Leake. Joseph Beckett.
Rose engines - - - - - - (*for producing designs on glass.*) (*Communicated by Anton Schwitter and Lewis Schwitter.*)	653	3rd March 1866	William Clark.
Mathematical drawing instruments - - - (*applied to engraving.*)	664	5th March 1866	William Ford Stanley.
An improved process and apparatus for producing ornamental surfaces on wood.	999	7th April 1866	Hamilton Wood.
Machinery for engraving and etching rollers and other surfaces - - - -	1019	10th April 1866	Robert Leake. William Shields. Joseph Beckett.
Stamping on flatted or unflatted metals - - (*producing sunk designs.*)	1139	23rd April 1866	Michael Spiquel. Eugène Henry Florange.
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state - -	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbell Dallas.
An improved method of and apparatus for printing from metal intaglios (obtained by the aid of photography) in gelatinous or other semi-transparent ink.	1918	24th July 1866	Walter Bentley Woodbury.
Shaping metals and other ductile materials (*sinking patterns.*)	1926	25th July 1866	Jasper Henry Selwyn.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ENGRAVING, &c.—*continued.*			
Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Émile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Machinery or apparatus for marking, etching or engraving on cylindrical and other surfaces.	2570	6th Oct. 1866	Henry Garside.
Improvements in machinery or apparatus for the production of reduced copies of medallions and matrices, and for preparing the cutting tools for that purpose.	2609	9th Oct. 1866	Charles John Hill.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*countersunk figures.*)	2975	13th Nov. 1866	William Walker Marston.
Improvements in the manufacture of tubes and other articles, and in the apparatus employed therein. (*imparting designs partly depressed.*)	2985	14th Nov. 1866	Hesketh Hughes.
Preparation of printing surfaces by the aid of photography.	3113	26th Nov. 1866	Robert Henelade Courtenay.
Obtaining basso-relievo or other such designs in relief and also in depression, by the aid of photography.	3177	3rd Dec. 1866	David Winstanley jun^{r}.
Producing printing surfaces and carvings from moulds obtained by the aid of photography. (*preparing for etching.*)	3393	24th Dec. 1866	Robert Howe Ashton.
ENVELOPES.			
Apparatus for embossing in colours on paper, envelopes or other articles - - -	296	30th Jan. 1866	John Ingram. John Gough.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
A certain improvement in envelopes - -	340	3rd Feb. 1866	Ernest Petito.
Envelopes - - - - - -	360	6th Feb. 1866	James Allen.
An improvement in the manufacture of waterproof paper. (*for envelopes.*)	675	6th March 1866	Reuben German Allerton.
Improved machinery for the manufacture of bags and envelopes made of paper or other fibrous materials, or woven or textile fabrics, either separately or combined.	848	22nd March 1866	Henry Rankin.
Machinery or apparatus for making envelopes and paper bags. (*Communicated by Robert Parks and John Armstrong.*)	1554	5th June 1866	John Henry Johnson.
Improved machinery for gumming and printing envelopes and wrappers for letters, newspapers and small parcels. (*Communicated by Henry Clay Berlin and George Henry Jones.*)	1556	5th June 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ENVELOPES—*continued.*			
Manufacture of envelopes by the combination of memorandum, counterfoil and seal lap in one piece.	1795	7th July 1866	Prosper Simard.
A new fastening for letter envelopes - -	1879	19th July 1866	Denis Marie Gilbert. Louis Adolphe Dubreux.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for envelopes.*)	1898	21st July 1866	Edward Tomlinson.
Improved machinery for making envelopes and paper and other bags.	2049	9th Aug. 1866	James Gathercole.
Improvements in machinery for manufacturing envelopes, partly also applicable to other purposes. (*Communicated by Edwin Allen and John Turner.*)	2056	9th Aug. 1866	Alfred Vincent Newton.
Manufacture of envelopes and of paper for making envelopes.	2109	16th Aug. 1866	Dudley Rolls.
EXCAVATING AND DREDGING; TUNNELS AND EMBANKMENTS.			
Machinery employed in forming tunnels and galleries in rocks.	58	8th Jan. 1866	Herbert Newton Penrice.
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - (*raising materials from tunnels.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.
Improvements in machinery used in cutting stone, slate and other minerals, and in forming tunnels, galleries and roads - - - -	433	12th Feb. 1866	William Fothergill Cooke. George Hunter.
Machinery or apparatus for perforating rocks to facilitate the formation of tunnels, galleries of mines, and for other similar purposes. (*Communicated by Theophilus Berrens.*)	655	3rd March 1866	James Stevenson.
Dredging and elevating machinery - - -	704	8th March 1866	Sylvester Franklin Schoonmaker.
Machinery for tunnelling underneath the beds of rivers or watercourses, and through quicksands.	770	15th March 1866	Robert Morton.
Machinery for mining and working coal, minerals, stone and other earthy matters - - -	807	19th March 1866	Edward Beacher. John Gillott.
A new or improved pneumatic steam dredging machine. (*Communicated by Emilio Musciacco.*)	810	19th March 1866	William Edward Gedge.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
EXCAVATING, &c.—*continued.*			
An improved method of clearing, deepening or enlarging rivers or creeks.	1018	9th April 1866	Thomas Philip Tregaskis.
Draining and consolidating cuttings, embankments and other parts of railways.	1175	26th April 1866	John Curtis.
An improved method of and apparatus for preserving the banks of rivers and watercourses, or other embankments, from corrosion or wasting. (*Communicated by Charles Nicoli.*)	1328	9th May 1866	William Edward Gedge.
Scoops and elevators for excavating - - (*Communicated by Augustus Theodore Morris.*)	1483	28th May 1866	William Clark.
Apparatus for excavating - - -	1701	26th June 1866	John Milroy.
Machinery or apparatus for sinking shafts or pits, and driving tunnels and galleries.	1784	5th July 1866	John Dickinson Brunton.
Means of preserving timber from decay - - (*for embankments.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
A new or improved pneumatic steam dredging machine. (*Communicated by Emilio Musciacco.*)	2407	19th Sept. 1866	William Edward Gedge.
Steam dredgers - - - - -	2723	22nd Oct. 1866	Alexander Carnegie Kirk.
Machinery or apparatus to be used for excavating and mining.	2797	30th Oct. 1866	James Hunter.
An improved method of and apparatus for preserving the banks of rivers and watercourses, or other embankments, from corrosion or wasting. (*Communicated by Charles Nicoli.*)	2910	8th Nov. 1866	William Edward Gedge.
Improvements in engines for boring rock and other mineral, and in frames or stands for boring engines.	2922	9th Nov. 1866	Frederick Bernard Dœring.
An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies, out of harbours, havens, docks, creeks, guts, bars, channels, water-courses, sluices, basins, lakes, ponds, marshes and similar places. (*Communicated by Jean Louis Vergnaias and Julien Apollinaire Chéron.*)	2931	10th Nov. 1866	Henri Adrien Bonneville.
Machinery for submarine excavations - - (*Communicated by Claudius Edward Habicht.*)	3025	17th Nov. 1866	William Edward Newton.
Machinery for drilling rocks - - - (*Communicated by Charles Burleigh.*)	3065	22nd Nov. 1866	George Haseltine.
Arrangement and construction of dredgers -	3421	29th Dec. 1866	William Simons. Andrew Brown.
EXTRACTS AND DECOCTIONS.			
An improved process and apparatus for extracting tan, bark and other vegetable materials. (*Communicated by Samuel White Pingree.*)	617	28th Feb. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
EXTRACTS, &c.—*continued.*			
A process of making improved beer and ale (*extracting essence from hops.*)	2298	7th Sept. 1866	John Schneider.
Certain improvements in the manufacture of the extract of madder. (*Communicated by Mr Jules Pernod.*)	3386	24th Dec. 1866	Hector Auguste Dufrené.
FABRICS; ELASTIC FABRICS.			
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages, and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
A machine for 'saving' or covering the lists or edges of fabrics. (*see* "DYEING.")	238	24th Jan. 1866	George Hinchliffe.
Process of dyeing and manufacture of textile fabrics (*lace.*)	345	3rd Feb. 1866	Francis Bryan Baker.
Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (*Communicated by Isaac Heer.*)	348	5th Feb. 1866	Charles Denton Abel.
Certain improvements in the ornamentation of silk and satin fabrics. (*see* "PRINTING.")	387	8th Feb. 1866	Richard Edwin Higson.
Manufacture of woollen damasks (*Communicated by Wilhelm Vogel.*)	415	10th Feb. 1866	Ernest Seyd.
Certain improvements in the manufacture of textile fabrics termed 'moleskins' or imperials and velveteens (*see* "WEAVING.")	432	12th Feb. 1866	Robert Wolstenholme. Richard Green Rodgers.
Manufacture of fabrics composed of india-rubber and cotton or other vegetable fibres.	499	16th Feb. 1866	James Heywood Whitehead.
Manufacture of endless cloths	501	16th Feb. 1866	James Heywood Whitehead.
Producing ornamental designs in color upon woollen, silk, cotton and other fabrics. (*see* "DYEING.")	511	17th Feb. 1866	Joseph Greenhalgh.
Looms for weaving a certain class of fabrics (*for towels.*)	542	21st Feb. 1866	John Smalley.
Manufacture of lace, gauze, net or elastic fabrics of that description.	551	22nd Feb. 1866	Narcisse Legendre.
Machinery or apparatus for cutting lace fabrics to make them into bonnet or cap fronts.	597	27th Feb. 1866	Charles Grey Hill.
Improvements in ornamenting lace fabrics and in the machinery or apparatus employed therein. (*see* "CEMENTED FABRICS.")	656	3rd March 1866	Charles Grey Hill.
Manufacture of elastic gusset webs	777	15th March 1866	James Cole, Junr.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FABRICS, &c.—*continued.*			
Manufacture of leather cloth - - -	907	29th March 1866	Thomas Storey. William Virgo Wilson.
Manufacture of lace, gauze, net or elastic fabrics -	937	2nd April 1866	Narcisse Legendre.
Manufacture of carpets and other goods having a raised terry or pile face. (*Communicated by The American Waterproof Cloth Company (Incorporated).*)	964	4th April 1866	William Edward Newton.
Manufacture of elastic fabrics - - -	986	6th April 1866	William Cole.
Manufacture of double fabrics - - -	994	7th April 1866	John Patterson.
Apparatus for producing loom-sewed fabrics -	1030	11th April 1866	William Wishart. Peter Cameron.
Manufacture of tubular or double fabrics in warp machinery.	1083	17th April 1866	Thomas Haimes.
Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper.	1153	24th April 1866	Rachel Stackhouse.
A new method of manufacturing woven fabrics - (*see* "WEAVING.")	1155	24th April 1866	Eugène Burle.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom.	1160	25th April 1866	John Watson Burton.
Weaving ornamental fabrics - - -	1455	24th May 1866	John Cunningham. Robert Cunningham.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Manufacture of card cloth - - -	1826	12th July 1866	Joseph Moseley.
Elastic fabrics - - - - -	1870	18th July 1866	John Macintosh. William Boggett.
Woven fabrics - - - - -	2090	15th Aug. 1866	James Alfred Turner.
Manufacture of elastic and other fabrics - -	2100	15th Aug. 1866	William Shaw. James Connell.
Improvements in perfecting or ornamenting lace and other like fabrics, and also in imitations of the same. (*Communicated by Auguste Pascal and Felix Varenne.*)	2220	28th Aug. 1866	William Clark.
An improvement in certain textile fabrics - -	2249	1st Sept. 1866	John Oates Greenwood.
Manufacture or ornamentation of cloth and pile fabrics. (*see* "CEMENTED FABRICS.") (*Communicated by Pierre Bouvier, Benôit Bouvier, Jean Baptiste otherwise Jules Bouvier and Geoffroy Bouvier.*)	2351	13th Sept. 1866	William Clark.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FABRICS, &c.—*continued.*			
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing, and placing, connecting and fastening together textile and other fabrics or materials so as to be sewn or stitched, or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Improved taking up apparatus applicable to machinery for the manufacture of elastic fabrics	2772	26th Oct. 1866	Archibald Turner.
Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured. (*see* "EMBOSSING.")	2865	5th Nov. 1866	Thomas Dunnill Clapham.
The improved manufacture of coverlets, rugs, quilts or covers for beds, and certain articles of wearing-apparel, and as a stuffing for cushions and pillows.	2885	7th Nov. 1866	Edward Huxley.
Lace fabrics - - - - - - (*see* "PRINTING.") (*Communicated by Auguste Pascal and Félix Varenne.*)	2945	10th Nov. 1866	William George Edward Swinnock.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*open knitted fabrics, lace, &c.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Machinery for the manufacture of elastic fabrics -	3151	30th Nov. 1866	Luke Turner.
Improvements in the manufacture of yarns used for weaving textile fabrics, and in the machinery or apparatus employed therefor - - - (*"wincey" or "linsey" cloth made from the yarn.*)	3231	7th Dec. 1866	Robert Smith. John Ramage.
Improvements in apparatus and material for ornamental painting, graining, marbling and such like purposes. (*stencil cloth.*)	3330	18th Dec. 1866	Thomas Titterington.
Manufacture of elastic and ribbed fabrics - -	3350	20th Dec. 1866	Samuel Belfield.
Manufacture of elastic gussets - - -	3451	31st Dec. 1866	James Miller. James Miller Junr.
FEATHERS; ARTIFICIAL FEATHERS AND FLOWERS.			
Improvements in the manufacture of artificial flowers, feathers and other articles, and in apparatus used for the same. (*Communicated by Bernard Villefon.*)	242	24th Jan. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FEATHERS, &c.—*continued.*			
A new means for manufacturing artificial flowers -	1244	2nd May 1866	Amable Adolphe Costallat.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*flowers, &c.*)	2322	10th Sept. 1866	William Edward Gedge.
FENCES AND RAILINGS.			
Manufacture of telegraph standards, fencing posts and signal posts.	24	3rd Jan. 1866	George Sinclair Robertson.
Improvements in and relating to fence, gate and telegraph posts - - - - -	514	19th Feb. 1866	Matthew Andrew Muir, James M'Ilwham.
An improved mode of connecting metallic wires - (*for fencing.*) (*Communicated by Nathan Bloch.*)	1503	29th May 1866	William Edward Newton.
Construction of continuous wrought-iron fencing, hurdles and gates.	1505	29th May 1866	William Bayliss the younger.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material - - - - - (*fence wires.*)	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor - - -	2060	10th Aug. 1866	Matthew Andrew Muir. James M'Ilwham.
Straining or tightening wire - - -	2397	18th Sept. 1866	Joseph Henry Sams.
Folding fencing - - - -	2595	9th Oct. 1866	Joseph Greening.
Improvements in uniting and securing together or ornamenting certain parts of metal bedsteads and other furniture in metal, and also in the formation of screens, grilles and metal railing.	2613	9th Oct. 1866	George Pitt.
FIBRES (*Obtaining from Plants, Recovering from Manufactured Goods, Separating, Cleansing, Packing.*)			
Treatment and application of vegetable fibres - (*for horse hair, bristles, &c.*)	14	2nd Jan. 1866	Werner Staufen.
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials.	39	5th Jan. 1866	James Ronald.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIBRES, &c.—*continued.*			
A new or improved detergent to be used in the washing or cleansing of wool. (*Communicated by Charles Dyonise Reinfeld.*)	65	9th Jan. 1866	John Henry Johnson.
Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose (*Communicated by Signor Joseph Vanzina d'Etienne.*)	107	12th Jan. 1866	Edward Sutherland. Horatio Sutherland.
An improved mode of treating fur, wool and hair (*Communicated by Alfred Clark Brush.*)	264	26th Jan. 1866	Alfred Vincent Newton.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes.	265	26th Jan. 1866	Henry Sherwood.
Improvements in softening fibrous materials and in the machinery or apparatus connected therewith	268	27th Jan. 1866	William Justice. Edward Guild.
Manufacture of paper by the employment of a fibre not hitherto used in this manufacture	332	2nd Feb. 1866	Henry Larkin. Robert Purkis.
An improvement in the treatment of rami or rhea fibre, commonly called and known as China or India grasses	357	6th Feb. 1866	Peter Augustin Godefroy. John William Mott.
Machines for washing wool and other fibrous materials.	577	24th Feb. 1866	John Petrie, jun^{r}.
Preparation of flax, hemp, china grass, jute or other fibrous substances of a similar nature	588	26th Feb. 1866	Francis Montgomery Jennings.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauzique.*)	659	5th March 1866	Marc Antoine François Mennons.
Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith	812	19th March 1866	Thomas Routledge. Thomas Richardson. William Henry Richardson.
A new or improved compound preparation to be used in the treatment of jute and china grass. (*Communicated by Georges Hanot.*)	828	20th March 1866	William Clark.
Machinery or apparatus for cleaning and preparing fibrous substances, and for opening twisted yarns and woven fabrics.	869	24th March 1866	Francis Alton Calvert.
Preparing and treating gun cotton	953	3rd April 1866	Eustace Carey Prentice.
Machinery for washing and drying wool and other fibrous materials	984	5th April 1866	John McNaught. William McNaught, jun^{r}.
Improvements in treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
Means or apparatus used in washing or scouring wool and other fibres	1032	11th April 1866	James Crabtree. Joseph Crabtree. Jonas Crabtree.
An improved mode of treating flax, hemp and other like fibrous substances.	1082	17th April 1866	Thomas Gray.
Machinery for washing wool, hair and other fibre	1138	21st April 1866	George Edmund Donisthorpe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIBRES, &c.—*continued.*			
An improved machine or apparatus for rippling or seeding flax. (*Communicated by Baron Woldemar von Loewis.*)	1148	23rd April 1866	Charles Denton Abel.
Machinery or apparatus for breaking and scutching flax and hemp. (*Communicated by Baron Woldemar von Loewis.*)	1149	23rd April 1866	Charles Denton Abel.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom.	1160	25th April 1866	John Watson Burton.
Machinery for preparing wool and other fibrous materials for combing and spinning - -	1272	4th May 1866	John Bapty. Frederick North.
Compressing cotton or other light materials upon trucks or waggons, for transit upon railways or other roads - - - - - -	1273	4th May 1866	John Walker. Arthur Warner.
Machinery or apparatus for washing wool - - (*Communicated by Julien Désiré Houget and Charles Teston.*)	1288	5th May 1866	John Henry Johnson.
Machinery for dressing fibres - - -	1298	7th May 1866	Daniel Chadwick junr. Gustav Albrecht Carl Bremme.
Machinery for scutching and preparing flax, hemp or other fibrous materials.	1359	11th May 1866	Edward Brasier.
Machinery or apparatus for cleaning and ginning cotton and other fibrous substances.	1397	17th May 1866	George Macdonald.
Manufacturing textile fabrics - - - (*see* "WEAVING.")	1428	21st May 1866	Adolphe Casse.
Compressing and packing cotton, wool, jute and other similar bulky articles.	1434	21st May 1866	James Templeton Wood.
Improvements in machinery for preparing and cleaning flax, tow, hemp, cotton, shoddy and other materials employed in textile manufactures and in the manufacture of paper.	1444	23rd May 1866	William Rowan.
Machinery for dressing silk - - -	1452	23rd May 1866	Thomas Greenwood.
Machinery for burring and cleansing wool and other fibrous substances. (*Communicated by Calvin Luther Goddard.*)	1532	1st June 1866	Alfred Vincent Newton.
Mode of and apparatus for treating fibrous materials preparatory to their being spun.	1629	15th June 1866	James Garth Marshall.
An improvement in saws for cotton gins - -	1758	2nd July 1866	Thomas Cowell Craven.
Treatment and application of vegetable fibres -	1761	2nd July 1866	Werner Staufen.
Cotton gins - - - - - -	1769	3rd July 1866	George Frederick Starnes.
Improvements in and apparatus for dressing or preparing for spinning hemp, flax, jute, manilla-hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics into oakum, tow and paper stuff, dressing and cleaning "waste" tow, wool, hair and other like "waste" fibres.	1814	11th July 1866	William Walker.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances -	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.
Machinery for carding, combing and cleaning cotton and other fibrous substances.	1988	2nd Aug. 1866	Charles Nicolas Plantrou.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIBRES, &c.—*continued.*			
Treatment of jute - - - - - -	2046	8th Aug. 1866	Allen Oldroyd. Peter Augustin Godefroy.
Softening, disintegrating and bleaching vegetable fibres.	2236	30th Aug. 1866	James Montague Mellor.
Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.	2269	4th Sept. 1866	Edward Nelson.
Machinery for washing and cleansing wool and other fibrous materials.	2352	13th Sept. 1866	James Lee Norton.
Means or apparatus for the preparation or treatment of flax, tow, hemp and other vegetable fibrous matters.	2375	15th Sept. 1866	Charles Cunningham Connor.
An improved self-acting feeding apparatus for cotton gins - - - - - -	2441	22nd Sept. 1866	Thomas Brace. William Savory.
Machinery for untwisting, separating and combing tarred ropes for oakum, and for dressing hemp, flax, manilla, jute or other like material.	2459	25th Sept. 1866	William Hunter.
Improvements in the means of and apparatus for compressing and packing cotton, wool, jute and other similar bulky articles.	2487	26th Sept. 1866	James Templeton Wood.
Processes and machinery for producing fibres suitable for being spun, from rags or remnants of woven or other textile fabrics made of silk, wool, cotton or other fibrous materials.	2497	27th Sept. 1866	Henry Ernest Gilles.
A new or improved self-feeding cotton gin - -	2501	27th Sept. 1866	Jules Alfred Chaufourier.
An improved tie to be used in fastening bales of cotton and all merchandize to be packed and tied into bales. (*Communicated by Charles William Wailey.*)	2535	3rd Oct. 1866	Moses Paul Robertson.
Machinery for washing wool, hair and other fibre -	2557	4th Oct. 1866	George Edmund Donisthorpe.
Improved machinery for preparing wool and other fibrous substances.	2562	4th Oct. 1866	James Ferrabee.
Apparatus for carding the tow of flax, hemp or jute and other fibrous substances, and separating the woody particles therefrom.	2563	4th Oct. 1866	Ferdinand Wilhelm Kaselowsky.
Machinery for separating the woody part from the fibre of flax, hemp or other fibrous substances of the same nature.	2564	4th Oct. 1866	Ferdinand Wilhelm Kaselowsky.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.	2603	9th Oct. 1866	James Conlong.
Machinery or apparatus for opening and cleaning wool and other fibrous materials. (*Communicated by Charles G. Sargent.*)	2626	11th Oct. 1866	Richard Edmund Lazonby.
An improved machine for cleaning and carding wool, cotton and other fibrous substances. (*Communicated by Paul Gauchez.*)	2649	13th Oct. 1866	Louis Rudolph Bodmer.
Improved machinery, apparatus and processes for preparing and treating vegetable fibres to be used as "half-stuff" in the manufacture of paper, papier-mâché and such like materials.	2698	18th Oct. 1866	William Simpson.
Certain improvements in cotton gins - - (*Communicated by Frederick Vedova.*)	2753	25th Oct. 1866	John Lacey Davies.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIBRES, &c.—*continued.*			
Machinery for separating the fibre of flax or other vegetable substances requiring such treatment.	2774	26th Oct. 1866	Frank Crossley.
Machines for drying wool, corn, grain and other substances - - - - -	2913	8th Nov. 1866	Alfred Giles. Thomas Sturgeon.
Improvements in treating vegetable substances, chiefly applicable to the manufacture of paper pulp and fibres. (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
A mode of treating the bark of the mulberry tree for the production of a new fibrous substance or vegetable silk. (*Communicated by Lucien Tracol-Faye.*)	2981	14th Nov. 1866	Henri Adrien Bonneville.
Machinery or apparatus for opening and cleaning fibrous materials. (*Communicated by Charles G. Sargent.*)	3070	22nd Nov. 1866	Richard Edmund Lazonby.
A new or improved detergent material applicable to the cleansing of wool and other fibrous substances, and to all purposes where coarse soap is used - - - - - - -	3093	24th Nov. 1866	James Mitchell. William Cumming Laird.
Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class - -	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
Improved machinery for assorting silk and other fibres.	3260	11th Dec. 1866	James Varley.
An improvement in the feeding apparatus in cotton gins. (*Communicated by Peter Taylor.*)	3342	20th Dec. 1866	Gerard Brown Finch.
Machinery for cleaning and preparing flax, hemp and other fibrous material, and for reducing the same to tow.	3365	21st Dec. 1866	William Rowan.
Machinery for carding and cleaning fibrous substances.	3387	24th Dec. 1866	Francis Alton Calvert.
Machinery or apparatus for rippling or seeding flax. (*Communicated by Baron Woldemar Von Loewis.*)	3444	31st Dec. 1866	Charles Denton Abel.
See also "SPINNING (OPENING)."			
FILES AND CLIPS.			
Improvements in the manufacture of fasteners for binding papers and for other like purposes, and in machinery to be used in the said manufacture.	104	12th Jan. 1866	Alfred Henry Hart.
An improved clip for fastening leather or other tips to billiard cues.	609	28th Feb. 1866	John Hick.
Files or holders for holding letters, invoices and music, and for other like purposes.	612	28th Feb. 1866	Frederick Brampton.
Portfolios and paper files - - - - (*Communicated by Henry Tillinghast Sisson.*)	875	24th March 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FILES AND RASPS.			
Improvements in the manufacture of files by means of machinery for smoothing and cutting them.	288	30th Jan. 1866	Jörgen Balthazar Dalhoff.
Machinery for cutting files - - - - (*Communicated by Aaron Chambers.*)	1507	30th May 1866	George Tomlinson Bousfield.
An improved means and apparatus for providing furrows in the surface of metals, applicable especially for cutting files and other purposes.	1596	12th June 1866	Pierre Hippolyte Limet.
Certain improvements in machinery or apparatus for cutting files.	1715	27th June 1866	John Henshall.
Machinery or apparatus for grinding and polishing circular saws and other articles. (*file blanks.*)	1812	11th July 1866	Edward M'Nally.
Cutting files - - - -	1987	1st Aug. 1866	Jules Talabot.
Machinery for cutting files and rasps - -	1992	2nd Aug. 1866	William Furness. William Bray.
Improvements in machinery for grinding, stripping and cutting file blanks, part of which improvements is also applicable to grinding and polishing chisels, plane irons and other articles.	2385	17th Sept. 1866	James Dodge.
Machinery or apparatus for the cutting of files or the formation or making of their teeth -	2490	26th Sept. 1866	Albert Francis Johnson. Moses Porter Griffin.
Machinery for cutting files and rasps - - (*Communicated by Alfred Weed.*)	2548	3rd Oct. 1866	William Robert Lake.
File cutting machinery - - - - (*Communicated by Alfred Weed.*)	2549	3rd Oct. 1866	William Robert Lake.
File cutting machines - - - - (*Communicated by Henry Comer, William Hespenheide and Samuel Rose.*)	2944	10th Nov. 1866	John Henry Johnson.
FILTERING, PURIFYING AND CLARIFYING LIQUIDS; FILTERS; DISTILLING WATER, SOFTENING WATER.			
Combination of chemical matters and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*medicating filters.*)	169	18th Jan. 1866	William Hibbert.
Obtaining motive-power either giving or not giving light. (*for distilling sea-water.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Mode of and apparatus for filtering water and other fluids.	356	5th Feb. 1866	Thomas Spencer.
Engines and apparatus for obtaining motive-power, and for using the foul air in mines as fuel. (*obtaining water for ships' use.*)	557	23rd Feb. 1866	James Parker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FILTERING, &c.—*continued.*			
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise.	667	5th March 1866	James Gray.
Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (*Communicated by Louis Pierre Robert de Massy.*)	1130	21st April 1866	William Edward Newton.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses.	1163	25th April 1866	George Edward Noone.
Apparatus for effecting a solution of lime for the purpose of softening hard water.	1180	27th April 1866	Thomas William Tobin.
An improved clarifying apparatus - - - (*Communicated by Félix Gaudin and Urbain Sanceau.*)	1310	8th May 1866	William Edward Gedge.
A new or improved process of cleansing animal black or bone charcoal, after or before its use for the purpose of filtering a saccharine syrup.	1366	12th May 1866	Gustavus Adolphus Jasper.
Construction of water cocks or hydrants - - (*Communicated by Jean Baptiste Denans.*)	1525	31st May 1866	Henry Edward Newton.
Treatment of animal charcoal used by sugar refiners or others, in order to its reuse.	1640	18th June 1866	William Barker Patrick.
Improvements in the purification of water and in the disinfection and preservation of putrescent and putrescible matters. (*Communicated by Dr Willy Kühne.*)	2107	16th Aug. 1866	Adolph Kühne.
Apparatus for filtering and purifying water and other fluids.	2125	18th Aug. 1866	George Edward Moore.
Treating and purifying water - - -	2218	28th Aug. 1866	Robert Irvine.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder.	2230	29th Aug. 1866	James Davis.
Apparatus for separating animal and vegetable matters from water and other liquids.	2331	11th Sept. 1866	William Olley.
Machinery or apparatus for filtering liquids - (*Communicated by Robert Stewart.*)	2451	24th Sept. 1866	William Edward Newton.
Water-closets, ash-pits, cesspools and similar places	2493	27th Sept. 1866	Thomas Lythgoe.
Certain improvements in apparatus for the filtration of fluids.	2525	1st Oct. 1866	Paul Rapsey Hodge.
Filtering presses for expressing the liquid parts and retaining the solid parts of any semi-liquid substances. (*Communicated by Pierre du Rieux and Edouard Roettger.*)	2602	9th Oct. 1866	Edward Thomas Hughes.
Improved apparatus for separating liquid from solid substances - - - -	2696	18th Oct. 1866	Nathaniel Grew. George Henry Money.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FILTERING, &c.—*continued.*			
Sugar refining - - - -	2773	26th Oct. 1866	John Wagener. George Jordan Firmin.
An improved manure obtained by an improved process of purifying foul waters. (*Communicated by Jules Houzeau and Eugène Devedeix.*)	2926	10th Nov. 1866	Henri Adrien Bonneville.
Purifying polluted water - - - -	3055	21st Nov. 1866	Charles James Wahab.
Improvements in the methods of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and using such apparatus for that and other purposes.	3165	1st Dec. 1866	Samuel John Browning.
Apparatus for filtering or straining liquids, and for washing and wringing cloth, rags and similar textile and fibrous substances.	3380	22nd Dec. 1866	Charles James Wahab.
FINISHING, DRESSING, SINGEING, SHEARING, FOLDING AND PRESSING WOVEN FABRICS, YARNS, &c.; CUTTING FUSTIANS.			
Improvements in finishing textile fabrics and in the machinery or apparatus connected therewith.	9	1st Jan. 1866	William Hynd Norrie.
Machines for washing, scouring and starching -	63	9th Jan. 1866	Thomas Bradford.
Apparatus for effecting the folding or rigging and the papering of woven fabrics - - -	77	10th Jan. 1866	Joseph Sampson. Charles Sampson. Henry Sampson. Amos Lockwood.
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*ash for loading cloths.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Apparatus for measuring and blocking drapery goods, paper hangings and such like purposes.	325	2nd Feb. 1866	William Boase.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soap and salts. (*for finishing.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
Improvements in preparing size or stiffening, and in applying the same to textile materials or fabrics.	386	8th Feb. 1866	Joseph Townsend.
Stretching woven fabrics during the processes of stiffening and sizing them - - -	424	10th Feb. 1866	John Charlton. Henry Charlton.
Machinery for cutting the pile of woven fabrics -	446	13th Feb. 1866	John Patterson.
Means of or apparatus to be employed for cutting fustians or other similar fabrics.	515	19th Feb. 1866	Joshua Whalley.
Manufacture of elastic reeds and combs for weaving and other purposes. (*combs for dressing-machines.*)	555	23rd Feb. 1866	James Pass.
Apparatus for calendering, mangling or finishing -	643	3rd March 1866	Robert Walker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FINISHING, &c.—*continued.*			
Apparatus for ironing and finishing linen and other fabrics. (*Communicated by James Lyall and William Lyall.*)	765	14th March 1866	William Clark.
Machinery for beetling woven fabrics - -	780	15th March 1866	William Hutchinson. Frederic Jolly.
Apparatus for opening or expanding fabrics during their passage through machinery employed in processes of finishing.	833	21st March 1866	Horatio Stead.
Certain improved agents suitable for cleaning and such like purposes. (*removing stains from fabrics.*)	837	21st March 1866	Charles Rozière.
Means or apparatus for drying and stentering woven fabrics.	844	22nd March 1866	John McNab.
Machinery or apparatus for cleaning and preparing fibrous substances, and for opening twisted yarns and woven fabrics.	869	24th March 1866	Francis Alton Calvert.
Machinery for finishing sewing thread or yarn -	888	26th March 1866	Samuel Barbour.
Machinery for dressing and polishing yarn, thread, twine, cords or ropes - - - - -	936	2nd April 1866	William Hill. Thomas Whitehead.
Improvements in the manufacture of soap or in the preparation of materials applicable to such manufacture, or for dressing or finishing textile fabrics.	1058	14th April 1866	Thomas Gray.
Beetling beams of beetling engines - -	1124	20th April 1866	Colin Mather.
Certain improvements in machinery or apparatus for stiffening, drying, stretching and finishing cotton and silk woven fabrics.	1126	21st April 1866	Joseph Ormrod Ramsbottom.
Printing and finishing all materials where ultramarine colors are used.	1176	26th April 1866	Alfred Paraf.
An improved machine for cleaning and preparing cotton and other woven fabrics.	1296	7th May 1866	Frederic Waddington.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein - - - -	1450	23rd May 1866	John Longbottom. James Eastwood.
Improvements in finishing thread and in the machinery and apparatus employed therefor.	1533	1st June 1866	Hugh Crawford. James Crawford.
Means or apparatus for effecting the "folding" and "papering" of woven fabrics - -	1849	14th July 1866	Joseph Sampson. Charles Sampson. Henry Sampson. Robert Burlison.
Certain improvements in the construction and mode of working calenders and mangles used in finishing textile fabrics - - - -	2078	14th Aug. 1866	Robert Wilson. William Martin, Junr.
Machinery for folding fabrics and inserting cardboard or other substances between the folds.	2175	24th Aug. 1866	Richard Tonge.
Improvements in machinery for cross raising the pile or nap of woollen and other cloths or fabrics, parts of which said improvements are also applicable to cross cutting machines - -	2297	7th Sept. 1866	Joseph Asquith. John William Asquith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FINISHING, &c.—*continued.*			
Manufacture or ornamentation of cloth and pile fabrics. (*see* "CEMENTED FABRICS.") (*Communicated by Pierre Bouvier, Benôit Bouvier, Jean Baptiste otherwise Jules Bouvier, and Geoffroy Bouvier.*)	2351	13th Sept. 1866	William Clark.
Apparatus employed in printing and folding paper hangings and woven fabrics.	2463	25th Sept. 1866	James Barker.
An improved mode of and apparatus for folding and shaping belts or bands of india-rubber (or compound consisting partly of india-rubber) and woven fabric.	2555	4th Oct. 1866	George Pomeroy Dodge.
Sulphuring yarns and fabrics - - -	2656	13th Oct. 1866	John Dale. John Gallemore Dale.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
Finishing yarns and threads used for weaving and sewing purposes.	2668	16th Oct. 1866	James Blain.
Improved apparatus to be used in connection with milling machinery.	2804	30th Oct. 1866	John Wilkinson Junr.
Machinery for polishing threads and yarns -	2868	5th Nov. 1866	Peter Kerr.
Improvements in finishing woven fabrics and in the machinery to be employed therefor.	2896	7th Nov. 1866	John Erskine Brown.
Improvements in the manufacture of emery and glass cloths, and in dressing and preparing woven fabrics for the same, and also in apparatus for cutting such cloths.	2911	8th Nov. 1866	Richard John Edwards.
Finishing parts of woollen garments - -	2936	10th Nov. 1866	Frederick Bruce Donisthorpe.
Stretching woven fabrics during the processes of stiffening, sizing, drying or finishing them.	2956	12th Nov. 1866	James Bentley. Willam Hampson.
Improvements in finishing thread and yarns, and in the machinery or apparatus employed therefor - - - - - - -	2962	12th Nov. 1866	Hugh Crawford. James Crawford.
Machinery for stiffening and finishing textile fabrics.	3040	20th Nov. 1866	William Chambers.
Improvements in woolen and other yarn or twisted strands, and in the machinery or apparatus employed in treating the same. (*shearing projecting fibres.*) (*Communicated by Edward Tucker Cooper Lutton.*)	3115	27th Nov. 1866	John Henry Johnson.
Certain improvements in the method of finishing certain descriptions of piled fabrics, and in apparatus connected therewith.	3194	5th Dec. 1866	John Mayo Worrall.
Improvements in stretching or tentering and in dressing or finishing lace or other fabrics, and in machinery or apparatus employed therein -	3285	14th Dec. 1866	Francis Bryan Baker. Leonard Lindley.
Machinery for raising the pile on fustians and other cotton fabrics.	3340	20th Dec. 1866	Thomas Schofield.
Improvements in holding, distending and otherwise treating or finishing woven and other web fabrics, and in the means or apparatus employed therefor.	3415	29th Dec. 1866	John Erskine Brown.
See also "DRYING."			

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, GUNS, ORDNANCE, GUN-CARRIAGES, TARGETS, RIFLE PRACTICE.			
Improvements in working and in the service of guns, with fittings thereof, and in gun carriages.	43	5th Jan. 1866	Henry Duncan Preston Cunningham.
Ordnance	46	6th Jan. 1866	Horatio Ames.
Revolving breech-loading guns	152	17th Jan. 1866	Wilson Ager.
Construction of breech-loading fire-arms	283	29th Jan. 1866	Jacob Snider Junr.
Improvements in ordnance and carriages, and in elevating apparatus for the same.	298	30th Jan. 1866	Charles Octavius Staunton.
Revolving fire-arms (*Communicated by Charles Mason.*)	299	31st Jan. 1866	William Robert Lake.
Manufacture of wrought iron tubes applicable to different purposes. (*gun-barrels.*) (*Communicated by Cadet Pierre Dubuisson.*)	305	31st Jan. 1866	Henri Adrien Bonneville.
An improvement in breech-loading fire-arms	366	6th Feb. 1866	James Gunner.
Breech-loading fire-arms	403	9th Feb. 1866	Frederic Thomas Baker.
Construction of breech loading fire-arms	422	10th Feb. 1866	James Henry Burton.
Apparatus for facilitating the working and discharge of ordnance below the water level.	441	12th Feb. 1866	James Atkinson Longridge.
Breech-loading fire-arms	491	16th Feb. 1866	William Spinks Riley.
Improvements in breech-loading guns and rifles, and in cartridges to be used therewith.	519	20th Feb. 1866	John Henry Walsh.
Improvements in breech-loading fire-arms and in cartridges for the same. (*Communicated by Hiram Berdan.*)	529	20th Feb. 1866	William Edward Newton.
Brushes or cleaners for cleaning gun barrels and other tubular articles.	537	21st Feb. 1866	Henry Bayliss.
Improvements in the construction of vessels of war, forts and batteries, and in mounting and working guns therein.	548	22nd Feb. 1866	John Walker.
Breech-loading fire-arms (*Communicated by Theodore Thaddeus Sobrieski Laidley.*)	578	24th Feb. 1866	William Edward Newton.
Breech-loading fire-arms	593	26th Feb. 1866	Sven Rydbeck.
Improvements in breech-loading revolving fire-arms, and in apparatus for extracting cartridges or cartridge cases therefrom. (*Communicated by Joseph Grünbaum.*)	610	28th Feb. 1866	David Leopold Cohn.
Construction of ordnance (*Communicated by James Tyler Ames.*)	673	5th March 1866	William Edward Newton.
Fire-arms (*Communicated by Pierre Joseph Jarre.*)	677	6th March 1866	Michael Henry.
Breech-loading fire-arms and cartridges	688	6th March 1866	Westley Richards.
Breech-loading fire-arms	714	9th March 1866	Charles Harvey.
Improvements in breech-loading fire-arms and in cartridges to be used therewith.	722	9th March 1866	Thomas Restell.
Fire-arms	760	14th March 1866	Edwin Russ. Henry Hammond. Edwin Hammond.
Construction and arrangement of springs (*for artillery.*)	763	14th March 1866	Julien François Belleville.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Breech-loading fire-arms - - - - (*Communicated by Christian Sharps and Horace Edward Dimick.*)	789	16th March 1866	John Henry Johnson.
A new and improved method of indicating the shot mark on a target at ball practice.	790	17th March 1866	Edwin Robert Wethered.
Breech-loading guns - - - - -	806	19th March 1866	Thomas George Sylven.
Improvements in the manufacture of gun and pistol barrels, and in machinery to be employed in the said manufacture.	822	20th March 1866	Arthur Richard Burr.
Nautical instruments and other instruments or apparatus of precision for use at sea. (*for firing guns.*) (*Communicated by Jacques Augustin Normand.*)	838	21st March 1866	Michael Henry.
Breech-loading fire-arms - - - - -	847	22nd March 1866	John Jackson.
Construction of breech-loading fire-arms - -	850	22nd March 1866	James Henry Burton.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms and ordnance.	864	23rd March 1866	Thomas Wilson.
Certain improvements in gun-barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies - - - - - -	901	27th March 1866	William Deakin. John Bagnall Johnson.
Breech-loading fire-arms - - - - (*Communicated by Joshua Gray.*)	914	29th March 1866	George Tomlinson Bousfield.
Improvements in breech-loading and other fire-arms, and in loading rods to be used therewith.	916	29th March 1866	George Sturrock.
Breech-loading fire-arms - - - - -	981	5th April 1866	Frank Emsdorff Walker.
Revolving fire-arms - - - - - (*Communicated by James Benjamin Doolittle and George Otis Downing.*)	997	7th April 1866	Edward Thomas Hughes.
Breech-loading fire-arms - - - - -	1033	11th April 1866	John Crofts.
Apparatus for removing exploded cartridges from breech-loading fire-arms. (*Communicated by Charles Victor Plumerel.*)	1061	14th April 1866	Henri Adrien Bonneville.
Breech-loading fire-arms - - - - (*Communicated by Johann Jacob Peter.*)	1066	16th April 1866	John Ulrich Zimmermann.
Breech-loading fire-arms - - - - -	1101	19th April 1866	Edwin Wilson.
Manufacture of ordnance - - - - -	1109	20th April 1866	William Webb.
Improvements in the mode of mounting targets for rifle ranges, and in the construction of markers' screens and signals designed for use with the same.	1187	27th April 1866	William Soper.
Scrapers for cleaning gun barrels and other tubes (*Communicated by Ephraim Lauriston Pratt.*)	1258	3rd May 1866	Jared Wilson Post. William M'Intyre Cranston.
Working the extractors for central fire guns -	1300	7th May 1866	William Wheeler Cross.
An improved mode of and means for extracting cartridge cases from breech-loading fire-arms -	1339	10th May 1866	John Cole. George Stephens Melland.
Breech-loading fire-arms - - - - -	1361	11th May 1866	Thomas Hunt.
Breech-loading fire-arms - - - - -	1367	12th May 1866	Charles Pryse. Richard Redman.
Gun locks - - - - - - (*Communicated by William Rudolph and Augustus Braun.*)	1378	15th May 1866	Henry Grafton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Breech-loading fire-arms - - - - (*Communicated by John Burke.*)	1396	16th May 1866	William Edward Newton.
An improved combustible and inextinguishable compound - - - - - (*for firing bombs, for destroying ships, &c.*)	1411	18th May 1866	James Sharp. Robert Smith.
Improvements in the lock and other parts of breech-loading fire-arms, and in cartridges for the same.	1417	19th May 1866	George Vincent Fosbery, V.C.
An improved cartridge extractor for breech-loading guns.	1460	25th May 1866	John Emme.
An improvement in breech-loading fire-arms -	1464	25th May 1866	James Purdey.
Utilizing the explosive force of discharges in guns and fire-arms, and diminishing or preventing the recoil.	1478	28th May 1866	Thomas Boyle.
An improved method of extracting cartridges and cartridge-cases from fire-arms - - -	1489	29th May 1866	Thomas Woodward. George Fallows.
A new or improved kind of perforated elastic-faced cellular target.	1491	29th May 1866	Joseph Hall.
Manufacture and construction of breech-loading and other rifles and guns.	1501	29th May 1866	William Rochester Pape.
Certain improvements in or connected with triggers for small arms. (*Communicated by William Rudolf.*)	1531	1st June 1866	Marius Adrien Caire.
Mounting and working of ordnance - -	1548	4th June 1866	Alexander Moncrieff.
Breech loading guns - - - -	1585	9th June 1866	James Erskine.
Breech-loading fire-arms - - - -	1603	13th June 1866	Samuel Bayliss.
Construction of breech-loading fire-arms so as to admit of altering guns from muzzle to breech-loaders. (*Communicated by Philo Remington, Samuel Remington and Eliphalet Remington.*)	1622	14th June 1866	William Edward Newton.
Breech-loading fire-arms - - - -	1691	25th June 1866	Thomas Prosper Saville.
Breech-loading fire-arms - - - -	1793	7th July 1866	Charles Harvey.
Construction of breech-loading or repeating fire-arms.	1810	10th July 1866	William Joseph Curtis.
Improvements in ordnance whereby they are rendered more portable, and in carriages for transporting the same.	1819	11th July 1866	William Hobbs.
Breech-loading fire-arms - - - -	1828	12th July 1866	Kenneth Henry Cornish.
An improved mode of preventing the heating and fouling of guns.	1852	14th July 1866	Wilson Ager.
Amorces or primings for fire-arms, toy-arms, or detonating toys.	1896	21st July 1866	Germain Canouil.
Fire-arms, toy-arms and detonating toys - -	1897	21st July 1866	Germain Canouil. François Armand Blanchon.
Certain improvements in fire-arms - - -	1932	25th July 1866	Henry Calisher.
Compressors or apparatus for receiving and absorbing the recoil of guns and other ordnance.	1935	25th July 1866	Josiah Vavasseur.
Improvements in the construction of revolver fire-arms and in apparatus employed in their manufacture, also in cartridges to be used therewith.	1959	28th July 1866	John Adams.
Breech-loading fire-arms - - - -	1960	28th July 1866	Westley Richards.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms.	1976	1st Aug. 1866	William Stokes. Charles Faulkner.
Construction of ordnance - - - - (*Communicated by John Ericsson.*)	1996	2nd Aug. 1866	William Edward Newton.
Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms, and in converting muzzle-loading into breech-loading fire-arms.	2016	4th Aug. 1866	Thomas Wilson.
Manufacture of coiled iron tubes or cylinders used in the construction of cannon.	2061	10th Aug 1866	George Wightwick Rendel.
An improved needle gun - - - -	2065	11th Aug. 1866	Henry Griffith Craig.
Breech-loading fire-arms - - - - (*Communicated by Alexander James Bergen.*)	2073	13th Aug. 1866	William Edward Newton.
Firearms - - - - - - -	2113	17th Aug. 1866	William Tranter.
Improvements in the construction of ordnance, partly applicable also to other purposes.	2133	20th Aug. 1866	Walter Weldon.
Improvements in fire-arms of all calibre, and for the conversion of muzzle-loading guns to breech-loading guns.	2135	20th Aug. 1866	John Darby.
An improved method of or apparatus for manœuvring guns.	2139	20th Aug. 1866	Robert Anthony Edwards Scott.
Improvements in breech-loading fire-arms and n cartridges for the same.	2143	21st Aug. 1866	James Clarendon Ramsbottom Isherwood. Robert Warry.
Improvements in breech-loading and other fire-arms, and in bayonets for the same. (*Communicated by Charles Howard.*)	2159	23rd Aug. 1866	Stephen Amos Main.
Breech-loading fire-arms - - - - (*Communicated by Thomas Jefferson Vail.*)	2187	25th Aug. 1866	William Edward Newton.
Improvements in breech-loading fire-arms and in cartridges for breech-loading fire-arms.	2196	25th Aug. 1866	Edgar Brooks.
Improvements in the construction and combination of breech-loading and repeating fire-arms and ordnance, and in the cartridges for use in the same.	2205	27th Aug. 1866	William Krutzsch.
Breech-loading fire-arms - - - -	2209	28th Aug. 1866	Thomas Walter Barber. William Barber.
Repeating fire-arms - - - - (*Communicated by Oliver Fisher Winchester.*)	2224	29th Aug. 1866	Edward Thomas Hughes.
An improved cartridge or cartridge case extractor for breech-loading guns.	2227	29th Aug. 1866	Thomas Turner Junr. William Siddons Junr.
Breech-loading fire-arms - - - - (*Communicated by Barton Howard Jenks.*)	2231	29th Aug. 1866	William Edward Newton.
Breech-loading fire-arms - - - -	2243	30th Aug. 1866	Augusto Albini. Francis Augustus Braendlin.
Carriages for field artillery - - - -	2265	3rd Sept. 1866	John Coope Haddan.
Fire-arms - - - - - - -	2267	3rd Sept. 1866	Edwin Russ. Henry Hammond. Edwin Hammond.
Cartridge case extractors for breech-loading fire-arms.	2272	4th Sept. 1866	Charles Reeves.
Breech-loading fire-arms - - - -	2279	5th Sept. 1866	James Leetch.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Gun and pistol locks - - - -	2287	6th Sept. 1866	William Poole Bardell. William Powell.
Improvements in the lock and other parts of breech-loading fire-arms, and in cartridges and projectiles for the same.	2293	6th Sept. 1866	George Vincent Fosbery, V.C.
Improvements in breech-loading fire-arms, and in the manufacture of cartridges to be used therewith. (*Communicated by Antoine Alphonse Chassepot.*)	2304	7th Sept. 1866	Clinton Edgcumbe Brooman.
Improvements in breech-loading fire-arms and in revolving fire-arms, and in cartridges for the said fire-arms.	2326	10th Sept. 1866	Edmund Harlow.
Improvements in gun carriages and in the mode of elevating and depressing guns.	2328	10th Sept. 1866	Robert Anthony Edwards Scott.
Mode of mounting and working revolving and other guns.	2337	11th Sept. 1866	Robert Anthony Edwards Scott.
Improvements applicable to gun carriages and platforms or slides.	2338	11th Sept. 1866	Robert Anthony Edwards Scott.
Breech-loading fire-arms - - - -	2417	20th Sept. 1866	Henry Carter. George Henry Edwards.
Breech-loading guns - - - -	2424	21st Sept. 1866	Graham Stuart.
Improvements in the process of casting iron cylinders or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together. (*cannons, mortars, &c.*)	2518	29th Sept. 1866	Jean Gueunier-Lauriac.
Certain improvements in fire-arms - - -	2520	29th Sept. 1866	William La Penotière.
Construction and use of projectiles and ordnance, and other arms.	2530	2nd Oct. 1866	Thomas Berney.
The manufacture and construction of breech-loading fire-arms.	2544	3rd Oct. 1866	Thomas Wilson.
Improvements in breech-loading fire-arms, and in cartridges for breech-loading fire-arms.	2580	6th Oct. 1866	Johann Vonder Poppenburg.
Breech-loading fire-arms - - - -	2622	10th Oct. 1866	James Syme.
Breech-loading fire-arms and bayonets for the same.	2642	12th Oct. 1866	Andrew Wyley.
Breech-loading fire-arms - - - -	2652	13th Oct. 1866	Augusto Albini. FrancisAugustusBraendlin.
Improvements in breech-loading fire-arms and in cartridges for the same, part of which improvements are applicable to ordnance. (*Communicated by Charles François Galand.*)	2695	18th Oct. 1866	Marc Antoine François Mennons.
Improvements in breech-loading fire-arms, and in cartridges to be used therewith.	2711	19th Oct. 1866	Thomas Restell.
A new or improved markers' butt or mantlett, together with an improved danger flag and signals for rifle shooting.	2729	23rd Oct. 1866	Robert Thomas Williams.
Improvements in the manufacture and construction of breech-loading fire-arms, and in cartridges for breech-loading fire-arms.	2743	24th Oct. 1866	Thomas Wilson.
Breech-loading fire-arms - - - -	2757	25th Oct. 1866	James Warren Robertson.
Improvements in breech-loading fire-arms, also in the manufacture of cartridges and apparatus employed therein - - - -	2813	30th Oct. 1866	George Henry Daw. Perceval Moses Parsons.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Fire-arms and cartridges	2855	3rd Nov. 1866	Joseph Lewis.
Breech-loading fire-arms	2875	6th Nov. 1866	William James Matthews.
Breech-loading fire-arms	2878	6th Nov. 1866	Thomas Hunt.
Fire-arms	2882	6th Nov. 1866	Thomas Henry Ince.
Breech-loading fire-arms and cartridges (*Communicated by Martial Pidault and Guillaume Elièze otherwise Lagrèze, and Jules Felix Gévelot.*)	2946	10th Nov. 1866	William Clark.
Breech-loading fire-arms (*Communicated by James Amsler Laffon.*)	2970	13th Nov. 1866	John Garrett Tongue.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*gun stocks.*)	2975	13th Nov. 1866	William Walker Marston.
Construction of breech-loading fire-arms	2996	15th Nov. 1866	Edwin Charles Hodges.
Breech-loading fire-arms	3022	17th Nov. 1866	Thomas William Webley.
Improvement in gun carriages, and in the means of working heavy ordnance.	3035	19th Nov. 1866	Jaques Hermann Auguste Gruson.
Construction of breech-loading ordnance	3049	20th Nov. 1866	Jaques Hermann Auguste Gruson.
Manufacture of guns or heavy ordnance of cast metal.	3051	20th Nov. 1866	Jaques Hermann Auguste Gruson.
Fire-arms and cartridges	3243	8th Dec. 1866	Westley Richards.
Breech-loading fire-arms	3244	8th Dec. 1866	Henry Dines.
Improvements in breech-loading fire-arms, and in cartridges to be used therewith.	3252	10th Dec. 1866	Edward James Warmington.
Certain improvements in breech-loading fire-arms, and in cartridges and bullets for the same. (*Communicated by Hiram Berdan.*)	3253	10th Dec. 1866	William Edward Newton.
Breech-loading fire-arms	3302	15th Dec. 1866	David Kirkwood.
Construction of fire-arms	3316	17th Dec. 1866	Michael Weber.
Improvements in breech-loading fire-arms, and in cartridge case extractors for breech-loading fire-arms, and in cartridges for breech-loading fire-arms.	3317	17th Dec. 1866	Walter Sandell Mappin.
Breech-loading fire-arms	3318	17th Dec. 1866	William Wood.
Improved means or method for facilitating artillery and rifle practice at long distances on short ranges.	3323	18th Dec. 1866	James William Cusack.
Breech-loading guns and projectiles	3325	18th Dec. 1866	John Macintosh.
Breech-loading fire-arms (*Communicated by Charles Robert Gillon.*)	3339	19th Dec. 1866	Franz Hayman.
Breech-loading fire-arms (*Communicated by Oscar Oelkers and Frederic Spengler.*)	3356	20th Dec. 1866	René Louis Martin.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
Breech-loading fire-arms	3382	22nd Dec. 1866	John Solomons Benson. Johann Vonder Poppenburg.
Breech-loading fire-arms	3383	22nd Dec. 1866	Joseph Rock Cooper.
Improvements in breech-loading fire-arms and in cartridges for the same.	3425	29th Dec. 1866	François Jules Manceaux.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ARMS, &c.—*continued.*			
Fire-arms	3442	31st Dec. 1866	Alexander Henry.
Breech-loading fire-arms	3447	31st Dec. 1866	George Pearce Pocock.
For Ammunition, *see* "CARTRIDGES."			
" " *see* "GUNPOWDER."			
" " *see* "SHOT."			
FIRE-ENGINES; FIRE-ESCAPES; EXTINGUISHING FIRES.			
Hydraulic machinery (*for extinguishing fire.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Fire-escapes	381	8th Feb. 1866	Joseph Sawyer. Samuel Middleton.
Improved means or apparatus for the extinguishing of fires in steam vessels, mills and other buildings in which steam is used	456	13th Feb. 1866	John Ogden. Abraham Rogers.
Certain improvements in the method of and means for communicating with and transmitting power from place to place. (*turning on water at fires.*)	521	20th Feb. 1866	Alfred Moore.
Construction of pumps (*for fire-engines.*)	539	21st Feb. 1866	Henry Spink Swift.
Machinery or apparatus applicable as a fire-escape, scaffold, lift or other such like useful purpose.	584	24th Feb. 1866	William Henry Prior.
An improved fire-escape	818	20th March 1866	Ralph Augustine Jones. John Cooper Hedges.
Pumps and fire-engines	1566	6th June 1866	Hyde Bateman.
Improved means of and apparatus for extinguishing fire in steam ships, mills, manufactories and other buildings	1723	28th June 1866	David Dawson. Dan Dawson. Thomas Broadbent.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes (*working steam fire-engines.*)	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Improvements in the construction of fire-escapes, such improvements being applicable to the construction of apparatus for analogous purposes.	1990	2nd Aug. 1866	Ephraim Lamb.
Construction of fire-escapes	2021	6th Aug. 1866	Ephraim Lamb.
Couplings or connections particularly adapted for coupling or connecting gas, water and other pipes (*hose pipes.*)	2023	6th Aug. 1866	Ralph Medcalf. William Nicholls.
Improvements in pumps and in adapting them for propelling vessels and for other purposes (*fire pumps.*)	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-ENGINES, &c.—*continued.*			
Water supply - - - - - - (*for fire mains.*)	2428	21st Sept. 1866	Robert Richardson. John Imray.
An improved fire-escape - - - -	2507	28th Sept. 1866	William Ryan. William Egar.
Apparatus for extinguishing fires - - - (*Communicated by François Carlier.*)	2553	4th Oct. 1866	Edward Casper.
An improved process for the preparation of india-rubber and kindred gums. (*for hose.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
Certain improvements in the construction of metallic pipes or tubes to be employed for the purposes of heating buildings and for extinguishing fire therein.	2734	23rd Oct. 1866	Robert Hollingdrake.
Fire-escapes - - - - - -	2784	27th Oct. 1866	Walter Richard Barnes.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes.	2816	31st Oct. 1866	John Scott.
A new metallic brush - - - - (*for extinguishing fires in chimneys.*)	2817	31st Oct. 1866	Thomas Welton.
Pumps and pump air vessels - - - (*or fire-engines.*)	2842	2nd Nov. 1866	Stephen Holman.
Pumps and fire-engines - - - -	3149	30th Nov. 1866	Hyde Bateman.
FIRE-PLACES, GRATES AND STOVES; FENDERS AND FIRE GUARDS.			
Means or apparatus employed in the combustion of gas, in gas stoves and burners employed in heating and cooking.	110	13th Jan. 1866	John Calvin Thompson.
Improvements in the construction of articles usually termed blowers, being plates or curtains applied to enclose stove fronts, and in the means of affixing the same.	150	16th Jan. 1866	James Stephens.
An improved coalscuttle - - -	158	17th Jan. 1866	John Banfill..
Improvements in and applicable to grates, and in the mode of fixing the same.	445	13th Feb. 1866	William Young.
Improvements in the manufacture of peat fuel and in the machinery employed therein. (*construction of stove.*)	545	22nd Feb. 1866	John Dickinson Brunton.
Improved cooking apparatus - - -	894	27th March 1866	Frederic Pelham Warren.
Effecting the combustion of fuel - - (*Communicated by Jacob Bührer and Charles Hamel.*)	956	4th April 1866	Francis Wise.
Apparatus for heating houses and apartments - (*Communicated by David Greene Haskins.*)	1003	7th April 1866	George Davies.
Improvements in and applicable to grates, fire-places and furnaces.	1029	11th April 1866	William Young.
Improvements in fire-places whereby the fuel used in such fire-places will be more readily ignited and a more complete combustion of such fuel effected.	1111	20th April 1866	Thomas Prideaux.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FIRE-PLACES, &c.—*continued.*			
Grates for furnaces and fire-places - - - (*Communicated by Addison Calvin Fletcher and John Hughes.*)	1129	21st April 1866	Alfred Vincent Newton.
Construction of furnaces or fire-places for economizing the fuel employed for warming, heating and ventilating buildings.	1252	2nd May 1866	David Urquhart.
Cooking or kitchen ranges - - - -	1306	8th May 1866	Benjamin Wright.
Furnaces and other fire-places - - - (*Communicated by Frédéric Marie Piret and Eugène Michel.*)	1395	16th May 1866	William Clark.
Grate bars for furnaces and fire-places - - (*Communicated by William M'Monnies.*)	1916	24th July 1866	John Henry Johnson.
Kitchen ranges, ovens and steamers - -	2121	17th Aug. 1866	Ebenezer Stevens.
An improved smoke-consuming fire-place - - (*Communicated by Charles René Marcadier.*)	2263	3rd Sept. 1866	Henri Adrien Bonneville.
Construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Gas stoves for heating and cooking - -	2908	8th Nov. 1866	James Thomson.
Cooking ranges - - - - - -	2917	9th Nov. 1866	Edward Knowles Heaps.
Improvements in the methods of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and using such apparatus for that and other purposes.	3165	1st Dec. 1866	Samuel John Browning.
Fire-places - - - - - - - (*Communicated by Monsieur Yves Leperdriel.*)	3170	3rd Dec. 1866	Hector Auguste Dufrené.
Improvements in the furnaces of steam-boilers, which improvements may also be applied to other furnaces - - - - - - (*cooking stoves.*)	3197	5th Dec. 1866	Thomas Bridges. Joshua Bigwood.
Construction of stoves for cooking or other purposes.	3274	13th Dec. 1866	Celeste Sinibaldi.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.	3453	31st Dec. 1866	Frederic Pelham Warren.
FIREWORKS.			
Pyrotechnics - - - - - - (*see* "TOYS.")	216	23rd Jan. 1866	Joseph Dare Junr.
An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fire-works and for other purposes.	309	31st Jan. 1866	Alexander Dembinsky.
An improved aquatic firework - -	1141	23rd April 1866	Frederic Barnett.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FISHING; FISHING NETS, FISH HOOKS, OYSTER RAKES.			
Treatment and application of vegetable fibres (*suitable for fishing lines.*)	14	2nd Jan. 1866	Werner Staufen.
Improvements applicable to the hoisting or lifting tackle for recovering sunken whales or other submerged bodies.	54	8th Jan. 1866	Thomas Welcome Roys.
Apparatus for catching fish	193	20th Jan. 1866	Alexander Bryson.
Fish hooks	413	9th Feb. 1866	Joseph Warner.
Machinery for the manufacture of fishing and other nets.	1619	14th June 1866	John Bellamy Payne.
Machinery for the manufacture of fishing and other nets.	1634	16th June 1866	William Maunder Ward.
An improved apparatus for fishing	1755	2nd July 1866	Georges Frère.
Treatment and application of vegetable fibres (*for fishing lines.*)	1761	2nd July 1866	Werner Staufen.
Apparatus to be used for fishing (*Communicated by Johan Kildal.*)	2008	3rd Aug. 1866	Wilhelm Hendrik Klerck Marc.
An improvement in submarine rakes for gathering oysters or other articles.	2171	23rd Aug. 1866	Job Johnson.
Machinery or apparatus to be employed in the manufacture of fish hooks.	2368	14th Sept. 1866	John Bindley.
FLUES AND CHIMNEYS; CHIMNEY TOPS; CURING SMOKY CHIMNEYS; CHIMNEY WIND GUARDS.			
Construction of tube brushes used in cleaning the tubes of marine, locomotive and all kinds of multitubular boilers.	139	15th Jan. 1866	Cornelius Moriarty.
Brushes or cleaners for cleaning gun barrels and other tubular articles. (*tubes of steam-boilers.*)	537	21st Feb. 1866	Henry Bayliss.
Construction of portable steam-engines (*and boiler flues.*) (*Communicated by Isidore Nillus the younger.*)	666	5th March 1866	George Davies.
Improved apparatus for cleaning the tubes of steam-boilers. (*Communicated by Daniel M'Dowell.*)	681	6th March 1866	Samuel Soutar.
Apparatus used in expanding boiler tubes (*Communicated by Richard Dudgeon.*)	699	7th March 1866	George Tomlinson Bousfield.
Puddling and converting furnaces	700	8th March 1866	Thomas Prideaux.
Improved means of preventing the smoking of chimnies and flues, and for the curing of smokey chimnies and flues, and for preventing down draught of chimnies and flues.	741	12th March 1866	Stephen Jakins.
The prevention or consumption of smoke	821	20th March 1866	William Naylor.
Improved means or apparatus for generating steam in steam-boilers.	878	24th March 1866	Robert Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FLUES, &c.—*continued.*			
Construction of coke ovens	919	29th March 1866	Charles Pardoe.
Coke ovens	933	2nd April 1866	William Blow Collis. Edward John Collis.
Means of and apparatus for preventing or curing smoky chimnies.	991	6th April 1866	William Cooke.
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources	1098	19th April 1866	William Oldham. Henry Penn. Charles Eades.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Furnaces and apparatus for separating heated gases, fumes or vapours, from each other and from solid or liquid bodies	1173	26th April 1866	William Edmond. Adolf Gurlt.
Steam-boilers	1200	28th April 1866	David Thomson.
Improvements in the arrangement of furnaces and apparatus connected therewith, for facilitating the combustion of smoke, and for preventing the cold air from going into the flues during the act of firing.	1210	28th April 1866	William Begg.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Steam-boilers (*Communicated by William Schaubel.*)	1227	1st May 1866	George Davies.
An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (*Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.*)	1309	8th May 1866	William Edward Gedge.
Construction of steam-boilers	1375	14th May 1866	Thomas Holt.
Steam generators	1408	18th May 1866	William Alexander Lyttle.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein	1450	23rd May 1866	John Longbottom. James Eastwood.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Locomotive engines and tenders (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
A smoke consuming heater	2002	2nd Aug. 1866	George Washington Fair.
Puddling furnaces (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FISHING; FISHING NETS, FISH HOOKS, OYSTER RAKES.			
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Improvements applicable to the hoisting or lifting tackle for recovering sunken whales or other submerged bodies.	54	8th Jan. 1866	Thomas Welcome Roys.
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Machinery for the manufacture of fishing and other nets.	1619	14th June 1866	John Bellamy Payne.
Machinery for the manufacture of fishing and other nets.	1634	16th June 1866	William Maunder Ward.
An improved apparatus for fishing	1755	2nd July 1866	Georges Frère.
Treatment and application of vegetable fibres (*for fishing lines.*)	1761	2nd July 1866	Werner Staufen.
Apparatus to be used for fishing (*Communicated by Johan Kildal.*)	2008	3rd Aug. 1866	Wilhelm Hendrik Klerck Marc.
An improvement in submarine rakes for gathering oysters or other articles.	2171	23rd Aug. 1866	Job Johnson.
Machinery or apparatus to be employed in the manufacture of fish hooks.	2368	14th Sept. 1866	John Bindley.
FLUES AND CHIMNEYS; CHIMNEY TOPS; CURING SMOKY CHIMNEYS; CHIMNEY WIND GUARDS.			
Construction of tube brushes used in cleaning the tubes of marine, locomotive and all kinds of multitubular boilers.	139	15th Jan. 1866	Cornelius Moriarty.
Brushes or cleaners for cleaning gun barrels and other tubular articles. (*tubes of steam-boilers.*)	537	21st Feb. 1866	Henry Bayliss.
Construction of portable steam-engines (*and boiler flues.*) (*Communicated by Isidore Nillus the younger.*)	666	5th March 1866	George Davies.
Improved apparatus for cleaning the tubes of steam-boilers. (*Communicated by Daniel M'Dowell.*)	681	6th March 1866	Samuel Soutar.
Apparatus used in expanding boiler tubes (*Communicated by Richard Dudgeon.*)	699	7th March 1866	George Tomlinson Bousfield.
Puddling and converting furnaces	700	8th March 1866	Thomas Prideaux.
Improved means of preventing the smoking of chimnies and flues, and for the curing of smokey chimnies and flues, and for preventing down draught of chimnies and flues.	741	12th March 1866	Stephen Jakins.
The prevention or consumption of smoke	821	20th March 1866	William Naylor.
Improved means or apparatus for generating steam in steam-boilers.	878	24th March 1866	Robert Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FLUES, &c.—*continued.*			
Construction of coke ovens	919	29th March 1866	Charles Pardoe.
Coke ovens	933	2nd April 1866	William Blow Collis. Edward John Collis.
Means of and apparatus for preventing or curing smoky chimnies.	991	6th April 1866	William Cooke.
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources	1098	19th April 1866	William Oldham. Henry Penn. Charles Eades.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Furnaces and apparatus for separating heated gases, fumes or vapours, from each other and from solid or liquid bodies	1173	26th April 1866	William Edmond. Adolf Gurlt.
Steam-boilers	1200	28th April 1866	David Thomson.
Improvements in the arrangement of furnaces and apparatus connected therewith, for facilitating the combustion of smoke, and for preventing the cold air from going into the flues during the act of firing.	1210	28th April 1866	William Begg.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Steam-boilers (*Communicated by William Schaubel.*)	1227	1st May 1866	George Davies.
An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (*Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.*)	1309	8th May 1866	William Edward Gedge.
Construction of steam-boilers	1375	14th May 1866	Thomas Holt.
Steam generators	1408	18th May 1866	William Alexander Lyttle.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein	1450	23rd May 1866	John Longbottom. James Eastwood.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Locomotive engines and tenders (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
A smoke consuming heater	2002	2nd Aug. 1866	George Washington Fair.
Puddling furnaces (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FLUES, &c.—*continued.*			
Gearing or apparatus for driving scrapers employed in cleansing the flues and tubes of boilers and heating apparatus.	2184	25th Aug. 1866	Edward Green.
Chimney pots or terminals - - -	2208	28th Aug. 1866	James Proctor.
A new or improved chimney cowl or ventilator -	2307	8th Sept. 1866	Michael Tossell.
Steam generators or boilers, water heaters and apparatus connected therewith.	2378	15th Sept. 1866	Joseph Twibill.
Improved apparatus for cleaning the tubes of steam-boilers.	2387	17th Sept. 1866	Daniel M'Dowell.
Certain new and useful improvements in steam jets (*Communicated by David Meeker Nichols.*)	2388	17th Sept. 1866	George Tomlinson Bousfield.
Furnaces and cupolas - - - - -	2627	11th Oct. 1866	George Hadfield.
Construction of steam-boilers - - - (*Communicated by Robert Bailey.*)	2805	30th Oct. 1866	William Edward Newton.
A new metallic brush - - - - - (*for sweeping chimneys.*)	2817	31st Oct. 1866	Thomas Welton.
An improved combination of apparatus fitting within every sort of chimney and preventing any smoke being driven back into apartments. (*Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.*)	2889	7th Nov. 1866	William Edward Gedge.
Cooking ranges - - - - - -	2917	9th Nov. 1866	Edward Knowles Heaps.
Improvements in chimney tops for the purpose of preventing or curing the down draft of smoke.	2949	10th Nov. 1866	John Denley.
Chimney tops or cowls - - - - -	2965	13th Nov. 1866	George Whitehead.
A new or improved spring regulator applicable to various industrial purposes, also applicable as a pressure gauge. (*regulator for chimney dampers.*)	2976	14th Nov. 1866	Julien François Belleville.
Certain improvements in apparatus for economizing fuel by retaining and applying heat to the heating of water. (*and cleansing the pipes.*)	3081	23rd Nov. 1866	John Robinson.
Improvements in chimney tops for the prevention of smoky chimneys.	3188	4th Dec. 1866	Daniel Sutcliffe Chater.
An improved mode of and apparatus for cleaning the outer surfaces of steam-boiler tubes. (*Communicated by Edouard Victor Jules Joublin.*)	3259	11th Dec. 1866	William Edward Newton.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery, and for ventilating mines, buildings, ships and other spaces. (*preventing down draft.*)	3373	22nd Dec. 1866	Joseph Sloper.
Steam-boilers - - - - - -	3390	24th Dec. 1866	Richard Lewis.
Apparatus connected with steam-boilers, for regulating the evaporating power thereof, and to obtain greater safety in their use - - (*regulating draft in flue.*)	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.	3453	31st Dec. 1866	Frederic Pelham Warren.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FOOD FOR CATTLE; FODDER-CUTTING; CHAFF-CUTTING; ROOT-PULPING.			
Manufacture of feeding cake for cattle - -	176	19th Jan. 1866	Sampson Langdale.
Apparatus for operating on straw applied to threshing machines or otherwise - - (*for fodder.*)	452	13th Feb. 1866	William Brown. Charles Neale May.
Treatment of brewers' and distillers' grains - (*obtaining food for animals.*)	565	23rd Feb. 1866	Robert Milburn, jun^{r}. William Henry Baxter.
Chaff cutting machines - - - -	639	2nd March 1866	Edmund Winder Otway.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom. (*using the seeds as food for animals.*)	1160	25th April 1866	John Watson Burton.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains in order to convert it into a spirit or liquid suitable for manufacturing purposes.	1445	23rd May 1866	Edward Gripper.
Apparatus for reducing or comminuting oil cake -	2748	24th Oct. 1866	Henry Septimus Coleman. Alfred George Edwin Morton.
Hay and chaff cutting machines - - -	2845	2nd Nov. 1866	John Howell.
Improvements in the preparation of food, of a substance to be employed in place of malt, and for the medication of food for animals.	3433	29th Dec. 1866	Johnstone Napier.
FORTIFICATIONS, BATTERIES, SHIPS OF WAR, GUN-BOATS, ARMOUR PLATED SHIPS.			
Mode of and apparatus for applying copper sheathing to ships constructed of or plated with iron.	257	26th Jan. 1866	François Louis Roux.
An improved construction of port stopper applicable to turret ships and land and floating batteries. (*Communicated by John Ericsson.*)	436	12th Feb. 1866	Alfred Vincent Newton.
Apparatus for facilitating the working and discharge of ordnance below the water level.	441	12th Feb. 1866	James Atkinson Longridge.
Building ships of war - - - -	472	14th Feb. 1866	Robert Napier.
Improvements in the construction of vessels of war, forts and batteries, and in mounting and working guns therein.	548	22nd Feb. 1866	John Walker.
Building ships of war - - - -	569	23rd Feb. 1866	John Scott Russell.
Improvements relating to the boilers and engines of steam ships - - - - -	759	14th March 1866	John Elder.
An improved submarine and torpedo boat - -	766	14th March 1866	Scovil Sturgis Merriam.
Construction of ships and other vessels - -	856	22nd March 1866	Thomas Edward Symonds.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FUEL, &c.—*continued.*			
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. (*as fuel.*) (*Communicated by Simon Stevens.*)	1628	15th June 1866	Benjamin Franklin Stevens.
Apparatus for screening coals and other materials -	1682	23rd June 1866	William Poupard,
Improvements in machinery for making bricks, which improvements are also applicable for moulding blocks for building, or for artificial fuel or for other purposes - - -	1768	3rd July 1866	Alexandre Pierre Joseph Allemand. Louis Gonzague Speyser.
An improved process for forming and combining small coal or coal dust into lumps, blocks or otherwise, to be employed for the purposes of fuel.	1782	5th July 1866	Henry George Fairburn.
Construction of apparatus for mixing, pressing and moulding coal and other substances, for the formation of artificial fuel, and dividing the same into blocks, such apparatus being also applicable to other analogous operations.	1871	18th July 1866	David Barker.
Facilitating the tipping of coal or other material from railway wagons, and for the prevention of breakage of coal in tipping, also waste of coal while tipping.	1886	20th July 1866	William Edward Nethersole.
Washing coal, ores and other minerals - -	1968	31st July 1866	John Addison Birkbeck.
Manufacture of fuel from peat and such like vegetable matter. (*Communicated by Louis Elsberg.*)	1971	31st July 1866	George Tomlinson Bousfield.
A new or improved artificial coal or fuel - -	2449	24th Sept. 1866	Arthur Francis Stoddard.
A new or improved fuel - - - -	2450	24th Sept. 1866	Arthur Francis Stoddard.
Improvements in drying solid substances and in the apparatus or means employed therein. (*fuel.*)	2453	24th Sept. 1866	Robert Kunstmann.
Treatment of the residues resulting from and obtained in the purification and distillation of mineral oils, for the purpose of utilizing the same. (*artificial fuel.*)	2472	25th Sept. 1866	John James Lundy.
Manufacture of fuel for heating purposes -	2473	25th Sept. 1866	John Hamilton.
Manufacture of artificial fuel - - -	2534	3rd Oct. 1866	David Barker.
A new and improved fuel - - - -	2683	17th Oct. 1866	John Hamilton.
Manufacture of artificial fuel - - -	2851	3rd Nov. 1866	John Roberts.
Improvements in drying tan and in the machinery or apparatus employed for that purpose. (*for fuel.*) (*Communicated by Laurent Bréval.*)	3042	20th Nov. 1866	Charles Denton Abel.
The manufacture of gas and the preparation of fuel	3126	27th Nov. 1866	John Tomlin. Charles Hook.
Improvements in means or apparatus for lighting fires, which improvements are also applicable to warming apartments and for other heating purposes.	3347	20th Dec. 1866	Whitmore Baker.

See also "CHARCOAL."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FULLING AND FELTING; FELTED FABRICS; FLOCK, WADDING.			
Machinery for the manufacture of asphalted felt - (*Communicated by Antoine d'Azambuja.*)	262	26th Jan. 1866	Richard Archibald Brooman.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*obtaining fibres for felting.*)	265	26th Jan. 1866	Henry Sherwood.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts. (*for fulling.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
Machinery for felting the bodies of hats and other coverings for the head.	455	13th Feb. 1866	Joseph Vero.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauzique.*)	659	5th March 1866	Marc Antoine François Mennons.
Manufacture of wadding - - -	686	6th March 1866	Alfred Barker.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*making a felt.*)	748	12th March 1866	John Macintosh.
Bat frames used in the manufacture of felted cloths	751	13th March 1866	Sam Fillingham.
Fulling machines - - - - -	785	16th March 1866	William Bates. Frederick Bates.
Manufacture of felt carpets - - -	1276	4th May 1866	August Röders.
Improvements in the manufacture of hair felt and in apparatus therefor.	1342	10th May 1866	John White.
Machinery or apparatus for soaping, washing, fulling, milling, wringing, mangling and ironing clothes and fabrics.	1423	19th May 1866	Nicholas Walton.
Machinery for fulling woollen cloths - -	2031	7th Aug. 1866	William Bottomley.
Woven fabrics - - - - - (*flocking one side.*)	2090	15th Aug. 1866	James Alfred Turner.
Manufacture of flocks - - - -	2132	20th Aug. 1866	William Greenwood.
Improvements in felting hats and other felted fabrics, and in apparatus for the same. (*Communicated by Charles Mossant.*)	2194	25th Aug. 1866	William Clark.
Art of felting or sizing hat bodies and machinery therefor. (*Communicated by Philip Wheeler Somers.*)	2389	17th Sept. 1866	George Tomlinson Bousfield.
An improved process for the preparation of india-rubber and kindred gums. (*flocking fabrics.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
Improved apparatus to be used in connection with milling machinery.	2804	30th Oct. 1866	John Wilkinson Junr.
Improved machinery or apparatus for manufacturing wadding. (*Communicated by Jean Marie Lazare Long.*)	3103	26th Nov. 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES AND FIRE-BOXES; SUPPLYING FURNACES WITH FUEL.			
Furnaces - - - - - - -	5	1st Jan. 1866	Thomas Prideaux.
Machinery and apparatus for charging blast and other furnaces. (*and closing the mouth.*)	6	1st Jan. 1866	William Barningham.
Improvements applicable to furnaces or fire-places for the purpose of more effectually and economically consuming the fuel therein.	25	3rd Jan. 1866	Bewicke Blackburn.
Improvements in the combustion of fuel and in the furnaces and apparatus employed therein.	29	4th Jan. 1866	James Hiscocks.
Smiths' forges and furnaces for smelting and puddling iron, steel and other metals - - -	38	5th Jan. 1866	William John Symons. Nathaniel Augustus Tover Symons.
Furnaces - - - - - - -	80	10th Jan. 1866	Edward Brown Wilson.
Construction of furnaces - - - - -	98	11th Jan. 1866	Dennis Hall.
Machinery and apparatus used in the manufacture of steel and iron.	154	17th Jan. 1866	Francis Preston.
Puddling furnaces and heating furnaces, and other reverberatory furnaces used in the manufacture of iron and steel.	202	22nd Jan. 1866	William Jeffries.
An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass -	208	22nd Jan. 1866	Pynson Wilmot Bennitt. Joseph Matthews.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*smokeless furnace.*)	265	26th Jan. 1866	Henry Sherwood.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*for feeding furnaces.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Obtaining motive-power either giving or not giving light. (*for supplying air to furnaces.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Steam-boilers or generators - - -	310	31st Jan. 1866	William Woodward. John Woodward.
Furnaces for steam-boilers and for other purposes -	336	3rd Feb. 1866	Thomas Molden.
Furnaces for melting metals - - -	342	3rd Feb. 1866	Philip Albert Muntz.
Apparatus for heating conservatories, apartments or boilers, by means of gas.	346	3rd Feb. 1866	Theophilus Alfred Gilbert Willington.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware - - - - -	399	9th Feb. 1866	Edward Bevan. Abel Fleming.
Apparatus for effecting the consumption of smoke in steam-boiler and other similar furnaces.	497	15th Feb. 1866	Charles Gall.
Steam-boiler furnaces - - - -	621	1st March 1866	James Daly Dow.
Improvements in the annealing of metallic plates and in the apparatus or means employed therefor - - - - - -	646	3rd March 1866	George Prentice. Alexander Binny Inglis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*supplying heated air to the furnace.*) (*Communicated by Robert Creuzbaur.*)	657	3rd March 1866	John Bischoff.
Improvements in the manufacture of zinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes.	671	5th March 1866	Charles William Siemens.
Improvements in apparatus for reburning and in apparatus for washing animal charcoal or charcoal substitutes.	683	6th March 1866	John Norman.
Puddling and converting furnaces - - -	700	8th March 1866	Thomas Prideaux.
Improvements in puddling iron and in apparatus employed therein.	702	8th March 1866	Jacob Geoghegan Willans.
Arranging steam-boiler and other furnaces, in order to render them more suitable for burning petroleum and like oils.	731	10th March 1866	Charles James Richardson.
Steam-boiler and other furnaces - - -	757	13th March 1866	Jean Baptiste Vuldy.
Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith -	812	19th March 1866	Thomas Routledge. Thomas Richardson. William Henry Richardson.
The prevention or consumption of smoke - -	821	20th March 1866	William Naylor.
An improved mode of treating waste liquors for the dissipating or utilizing of the same - - (*furnaces for evaporating.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
Effecting the combustion of fuel - - - (*Communicated by Jacob Bührer and Charles Hamel.*)	956	4th April 1866	Francis Wise.
Construction of furnaces for the prevention of smoke.	990	6th April 1866	John Chesters.
An improved process and apparatus for producing ornamental surfaces on wood. (*furnace for heating the dies.*)	999	7th April 1866	Hamilton Wood.
Collecting the heated gases from blast furnaces so as to utilise the same - - - -	1023	10th April 1866	James Sparrow. Samuel Poole.
Improvements in and applicable to grates, fireplaces and furnaces.	1029	11th April 1866	William Young.
Water tuyeres - - - - -	1043	12th April 1866	Edward Devey.
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources - -	1098	19th April 1866	William Oldham. Henry Penn. Charles Eades.
Grates for furnaces and fire-places - - (*Communicated by Addison Calvin Fletcher and John Hughes.*)	1129	21st April 1866	Alfred Vincent Newton.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Hot-blast stoves or apparatus for heating blast for smelting iron.	1137	21st April 1866	John Player.
Fire-places or furnaces of malt and other kilns -	1147	23rd April 1866	Richard William Abbotts.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
An improved furnace or oven for the cooling of window glass, and apparatus to be used therewith.	1159	25th April 1866	Désiré Bievez.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
Furnaces and apparatus for separating heated gases, fumes or vapours from each other, and from solid or liquid bodies - - -	1173	26th April 1866	William Edmond. Adolf Gurlt.
Improvements in the arrangement of furnaces and apparatus connected therewith, for facilitating the combustion of smoke, and for preventing the cold air from going into the flues during the act of firing.	1210	28th April 1866	William Begg.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Steam-boilers. - - - - - - - (*Communicated by William Schaubel.*)	1227	1st May 1866	George Davies.
Improvements in reverbatory blast and other furnaces for smelting ores, and in the means of extracting the precious metals therefrom -	1232	1st May 1866	John Thomas. Alexander Prince.
Construction of furnaces or fire-places for economizing the fuel employed for warming, heating and ventilating buildings.	1252	2nd May 1866	David Urquhart.
Apparatus for consuming smoke - - -	1253	2nd May 1866	John Botterill.
Cupola and other furnaces - - - -	1292	5th May 1866	Samuel Chatwood. John Sturgeon.
Manufacture of glass - - - -	1297	7th May 1866	Antoine Pocheron.
Certain improvements in furnaces employed in generating steam.	1354	11th May 1866	Thomas Wimpenny.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*Communicated by Jakob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Furnaces and other fire-places - - - (*Communicated by Frédéric Marie Piret and Eugène Michel.*)	1395	16th May 1866	William Clark.
Furnaces for obtaining perfect combustion of fuel -	1398	17th May 1866	Josiah Hampton.
Steam generators - - - - -	1408	18th May 1866	William Alexander Lyttle.
Steam and other boilers - - - -	1457	24th May 1866	Thomas Green.
Improvements in blast furnaces and in the manufacture of iron therein.	1469	25th May 1866	Göran Fredrik Göransson.
Use and application of fuel, and of chemical reagents to eliminate its impurities or those of the substances it is to heat.	1471	26th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets - - - - -	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Improvements in steam-boilers, which improvements are also applicable to hot water and other boilers.	1576	8th June 1866	William John Fraser.
Furnaces for consuming petroleum and other hydrocarbons.	1593	12th June 1866	Samuel Lees.
Improvements in the method of burning coals (whether large or small coals) coal dust, coke dust, charcoal, wood and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.	1594	12th June 1866	Thomas Joseph Leigh.
Improvements in furnaces, furnace doors and furnace bars.	1599	12th June 1866	Robert Alfred Wright.
Improvements in apparatus for and in the method of effecting the combustion of fuel. (*Communicated by Jakob Bührer and Carl Hamel.*)	1611	13th June 1866	Astley Paston Price.
The better combustion of fuel in steam-boilers, and other furnaces.	1658	20th June 1866	James Abbott.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture.	1698	26th June 1866	Charles Forster Cotterill.
Improvements in smelting iron ores, and in apparatus used with blast furnaces.	1734	29th June 1866	Henry Hobson.
Construction of furnaces and kilns. (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
Certain improvements in furnaces - - - (*for boilers.*)	1789	6th July 1866	John Aiken Salmon.
A new and improved arrangement of furnace to be applied to steam-boilers, which is also applicable for other purposes - - - - -	1813	11th July 1866	George William Hawksley. Matthew Wild. Joseph Astbury.
Improvements in the manufacture of iron and cast-iron, and in the apparatus employed therefor.	1823	11th July 1866	Jules Nicolas Fournel.
Certain improvements in furnaces - - -	1892	21st July 1866	Richard Hooper.
Improved means or apparatus for consuming smoke in the furnaces of steam-boilers, also in other furnaces where applicable.	1901	21st July 1866	Robert Newton.
Grate bars for furnaces and fire-places - - (*Communicated by William M'Monnies.*)	1916	24th July 1866	John Henry Johnson.
Hot blast for smelting and other furnaces - -	1962	30th July 1866	Jonathan Pickering.
An improved method of promoting combustion of fuel in steam-boiler furnaces and other furnaces. (*Communicated by Clark Fisher.*)	1985	1st Aug. 1866	William Edward Newton.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture.	2059	10th Aug. 1866	Charles Forster Cotterill.
Furnaces - - - - - -	2062	11th Aug. 1866	William Mosley the younger.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Improvements in the combustion and prevention of smoke, and in increasing the heating power of fuel.	2072	13th Aug. 1866	Desiré Marchal.
An improved heating apparatus - - - (*Communicated by Sidney Smith.*)	2105	16th Aug. 1866	William Robert Lake.
Puddling furnaces - - - - (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces.	2259	3rd Sept. 1866	David Caddick.
An improved smoke consuming fire-place - - (*Communicated by Charles René Marcadier.*)	2263	3rd Sept. 1866	Henri Adrien Bonneville.
Furnaces for the manufacture of glass, commonly called melting furnaces.	2278	5th Sept. 1866	Thomas George Webb.
Certain improvements in water tuyeres - -	2372	15th Sept. 1866	Noah Dunn.
Manufacture of iron - - - -	2374	15th Sept. 1866	Benjamin Bayliss.
Improvements in the smelting of iron and in furnaces therefor.	2390	17th Sept. 1866	George Dyson.
An improved arrangement of steam-boiler and furnace.	2408	19th Sept. 1866	Thomas Dixon.
Improvements in smelting metallic ores, and in furnaces to be employed for that purpose.	2413	20th Sept. 1866	Charles William Siemens.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Bérard.
Apparatus for consuming smoke and economising fuel.	2458	25th Sept. 1866	Henry Turner.
Improvements in furnaces and in the method and apparatus for supplying such furnaces with fuel or other combustible matters - -	2476	25th Sept. 1866	Harrison Aydon. George Bastall Jerram.
Improvements in puddling and heating furnaces, and other furnaces used in the manufacture of iron and steel.	2494	27th Sept. 1866	John Burgum.
Furnaces for treating metals and other matters - (*Communicated by Louis Adolphe Bon.*)	2527	1st Oct. 1866	William Clark.
Boilers and boiler furnaces - - -	2546	3rd Oct. 1866	Henry Fisher.
Grate bars - - - - - (*Communicated by Samuel Harrison.*)	2559	4th Oct. 1866	John Henry Johnson.
Improvements in furnaces or fire-places, and in the fire-bars to be used therein.	2586	8th Oct. 1866	James Robertson.
Improvements in and applicable to that class of furnace fire grates on which the fuel is made to travel - - - - - - -	2605	9th Oct. 1866	Thomas Vicars the elder. Thomas Vicars the younger. James Smith.
Improvements in the melting and casting of steel, and in the apparatus employed therein - -	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture - - - -	2614	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of iron and steel, and in the apparatus employed therein - -	2616	9th Oct. 1866	George Henry Benson. William George Valentin.
Furnaces - - - - -	2625	11th Oct. 1866	Edward Brown Wilson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Furnaces and cupolas	2627	11th Oct. 1866	George Hadfield.
Heated air-engines	2633	11th Oct. 1866	Henry Messer.
Improvements in heating and warming rooms and other buildings, and in apparatus for the same. (*Communicated by Louis Marie Anez.*)	2647	12th Oct. 1866	William Clark.
Improvements in furnaces and in constructing and actuating the moveable fire bars of furnaces	2667	16th Oct. 1866	John Griffiths. John Beard.
An improved method of consuming smoke in furnaces.	2738	23rd Oct. 1866	William Harrison.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places.	2744	24th Oct. 1866	Joseph Watts.
Furnaces for the manufacture of alkali	2749	24th Oct. 1866	James Cochran Stevenson.
An 'auxiliary smith's fire'	2843	2nd Nov. 1866	William Frost. John Henry Leather. James Nelson.
Improvements in heating applicable to steam-boilers' furnaces and other heating apparatus.	2848	3rd Nov. 1866	Francis Alton Calvert.
Lining or 'fettling' for puddling furnaces and containing vessels in which pig or crude iron is converted into wrought iron or steel.	2857	3rd Nov. 1866	John Player.
Furnaces for steam-boilers	2887	7th Nov. 1866	William Humphrey.
Improvements in furnaces for burning or consuming smoke, more especially applicable to the furnaces of boilers.	2907	8th Nov. 1866	John James Bagshawe.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes.	2940	10th Nov. 1866	Nicholas Korshunoff.
An improved method for consumption of smoke and saving of fuel, without the least loss of steam power. (*furnace doors.*)	3001	15th Nov. 1866	Edward Dawson.
Furnaces of steam-boilers	3027	19th Nov. 1866	Samuel Glenton.
Improvements in the reduction and treatment of zinc ores in the manufacture of spelter, and in the utilization of the products resulting therefrom, and also in the construction of the furnaces and apparatus employed for such purposes.	3117	27th Nov. 1866	Charles Crockford.
Furnaces and steam-boilers	3122	27th Nov. 1866	Thomas Dickins. Harvey Heywood. John Holland.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels. (*blowing furnaces.*)	3139	29th Nov. 1866	Edward Hughes.
A new means for procuring the more perfect combustion in the burning of fuel.	3147	30th Nov. 1866	Tony Petitjean.
Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in the furnaces of steam-boilers, which improvements may also be applied to other furnaces	3197	5th Dec. 1866	Thomas Bridges. Joshua Bigwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
Improvements in the combustion and prevention of smoke, and in increasing the heating power of fuel.	2072	13th Aug. 1866	Desiré Marchal.
An improved heating apparatus - - - (*Communicated by Sidney Smith.*)	2105	16th Aug. 1866	William Robert Lake.
Puddling furnaces - - - - (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces.	2259	3rd Sept. 1866	David Caddick.
An improved smoke consuming fire-place - - (*Communicated by Charles René Marcadier.*)	2263	3rd Sept. 1866	Henri Adrien Bonneville.
Furnaces for the manufacture of glass, commonly called melting furnaces.	2278	5th Sept. 1866	Thomas George Webb.
Certain improvements in water tuyeres - -	2372	15th Sept. 1866	Noah Dunn.
Manufacture of iron - - - - -	2374	15th Sept. 1866	Benjamin Bayliss.
Improvements in the smelting of iron and in furnaces therefor.	2390	17th Sept. 1866	George Dyson.
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Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture - - - -	2614	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of iron and steel, and in the apparatus employed therein - -	2616	9th Oct. 1866	George Henry Benson. William George Valentin.
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Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNACES, &c.—*continued.*			
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.
Treatment of ores of metals of which the sulphates are soluble in water - - - - -	3212	6th Dec. 1866	Paul Emile de Wiesocq. Count Louis Kransinski.
Steam-boiler and other furnaces - - -	3309	17th Dec. 1866	John Hauworth.
Effecting the combustion of substances in a pulverulent state. (*Communicated by Aimé Victor Olivier.*)	3354	20th Dec. 1866	William Edward Newton.
Apparatus for producing a draught in furnaces and for purifying the smoke therefrom. (*Communicated by Claude Moret and Felix Raux.*)	3371	21st Dec. 1866	William Clark.
Water tuyeres - - - - -	3375	22nd Dec. 1866	Francis Northall. Richard Turnley.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating, and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.
FURNITURE; BEDSTEADS, TABLES, CHAIRS, CRADLES AND NURSING-APPARATUS; CASTORS, BEDSTEAD-BOTTOMS.			
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
An improvement in the manufacture of iron and other metallic bedsteads, by the application of wooden laths instead of sacking or iron lath bottoms.	157	17th Jan. 1866	Thomas Allen.
Construction of stands for bassinettes or childs' cots.	292	30th Jan. 1866	Edwin Robert Wethered.
Spring bed bottoms - - - - (*Communicated by John Jay Haley.*)	380	8th Feb. 1866	Samuel John Salkeld.
Manufacture of portable chairs - - -	410	9th Feb. 1866	Thomas Clift.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*ornamenting furniture.*)	740	10th March 1866	Philip Henry Ashberry.
A combined arm chair and travelling bag - - (*Communicated by Léandre Paul Quétineau.*)	892	27th March 1866	William Edward Gedge.
Fastenings for doors, safes, boxes, drawers and other applications where locks or fastenings are required.	1118	20th April 1866	James Allen.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNITURE, &c—*continued.*			
Applications of materials to surfaces for ornamental purposes. (*ornamenting cabinet pedestals.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
Manufacture of iron bedsteads - - -	1178	26th April 1866	George Hallen Cottam. Henry Richard Cottam.
Improved method of fastening covers or cushions to chairs and other similar seats.	1386	16th May 1866	Alexander Cochrane.
Manufacture of metallic bedsteads and other articles of like manufacture.	1427	21st May 1866	James Tombs.
Construction of camp or folding bedsteads - - (*Communicated by Robert Clegg.*)	1661	31st June 1866	Benjamin Browne.
Preparation and application of surfaces for disposing and picking up coin. ("*tablet.*")	1797	7th July 1866	John Murray.
An improved looking-glass press, including an incombustible strong box.	1800	9th July 1866	Pierre Joseph Bellot Senr.
A convertible piano and music stool - - (*Communicated by Charles Hess.*)	1806	10th July 1866	John Millward.
An improved construction of folding chair - - (*Communicated by Benjamin Johns Harrison and James Condie.*)	1836	12th July 1866	Alfred Vincent Newton.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
An improved fastening intended to replace the ordinary screws and nuts in bedsteads and articles of furniture generally. (*Communicated by Pierre Armand Protard.*)	1973	31st July 1866	William Edward Gedge.
Ships' furniture in which a steady platform is required. (*tables, chairs, &c.*)	2009	3rd Aug. 1866	Charles Ritchie.
Improvements in the mode of applying covers or awnings to garden and other similar seats, which improvements are also applicable to awnings or covers for other purposes. (*Communicated by Adolphe Laumeau.*)	2042	8th Aug. 1866	Eugène Henri Désiré Ingé.
Manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture and ornaments thereon. (*Communicated by Henry Ludwig Danchell.*)	2180	24th Aug. 1866	Frederick Hahn Danchell, C.E.
The elastic tubular india-rubber air chambered pannels.	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
An improvement or improvements in manufacturing, decorating and ornamenting articles of furniture.	2343	12th Sept. 1866	James Pratt Bright.
A combined bath, travelling trunk and self-rocking cradle.	2391	18th Sept. 1866	William Henry Bailey.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*desks, dressing-cases, &c.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Improvements in uniting and securing together or ornamenting certain parts of metal bedsteads and other furniture in metal, and also in the formation of screens, grilles and metal railing.	2613	9th Oct. 1866	George Pitt.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
FURNITURE, &c.—*continued.*			
Ornamenting bedsteads - - - -	2662	15th Oct. 1866	John Wright.
A new or improved portable or folding reading desk, stand or easel.	2853	3rd Nov. 1866	Edward Parsons North.
Manufacture of bedsteads - - - -	2860	3rd Nov. 1866	William Francis Phillipson.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*for tables.*) (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
Improved means of forming joints between sashes, doors, drawers and other structures, and the frames in which they move or are fitted.	2959	12th Nov. 1866	John Richard Cadman.
Metallic bedsteads, cots and couches - -	2964	13th Nov. 1866	Leonard Brierley.
Improvements in bedsteads and in their application in apartments.	2974	13th Nov. 1866	Julia Parris Brown.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*furniture.*)	2975	13th Nov. 1866	William Walker Marston.
Improvements in shop fittings, applicable also to book shelves and other articles of furniture - (*sets of pigeon holes.*)	3074	22nd Nov. 1866	George Frederick Stidolph. John Stidolph. Joseph Roberts Morley.
Improvements in furniture springs and in machinery to be employed in the manufacture of furniture springs.	3129	28th Nov. 1866	Henry Timmins.
An improved manufacture of elastic seat - - (*see* "UPHOLSTERY.")	3135	28th Nov. 1866	George Howard.
Improvements in the manufacture of studs or nails for upholstery, harness and other purposes, and in the apparatus employed therein. (*for furniture.*) (*Communicated by Hippolyte Parpaite.*)	3248	10th Dec. 1866	Clinton Edgcumbe Brooman.
An improved hammock cot and means for suspending the same.	3290	14th Dec. 1866	Arthur Woods.
Apparatus for the prevention of sea sickness - (*chair.*)	3338	19th Dec. 1866	Michael Hodge Simpson.
Construction of camp or folding bedsteads - (*Communicated by Robert Clegg.*)	3370	21st Dec. 1866	Benjamin Browne.
GAMES AND EXERCISES; BILLIARDS AND BAGATELLE.			
An improved clip for fastening leather or other tips to billiard cues.	609	28th Feb. 1866	John Hick.
Cricket balls, racket, tennis and foot balls -	739	10th March 1866	Charles Huntley.
Certain parts of the apparatus connected with the game of cricket - - - - -	783	16th March 1866	William Coles Fuller. John Margetts.
Croquêt balls - - - - - -	884	24th March 1866	Walker Moseley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GAMES, &c.—*continued.*			
Cues, rests and other implements used in playing the game of billiards, bagatelle and other similar games.	1075	16th April 1866	George Pomeroy Dodge.
Cricket wickets - - - - - -	1246	2nd May 1866	William Hubert Stanley.
Improved apparatus and automatic figures capable of performing various gymnastic feats - -	3278	13th Dec. 1866	John Henry Pepper. Seraphicus Francis Pichler.
Marking boards for billiards, pool, bagatelle and other such games.	3294	15th Dec. 1866	William Henry Burroughes.
GAS, GASOMETERS, HOLDERS AND RETORTS; OXYGEN.			
An improved method of producing oxygen - (*Communicated by Charles Raphael Maréchal and Cyprien Marie Tessie du Motay.*)	85	10th Jan. 1866	Richard Archibald Brooman.
Construction, arrangement and application of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases - - - - - -	91	11th Jan. 1866	Percival Ashton Batchelor. Frederick Reddall.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*applicable to producing gases.*)	265	26th Jan. 1866	Henry Sherwood.
Furnaces for steam-boilers and for other purposes - (*for gas works.*)	336	3rd Feb. 1866	Thomas Molden.
Barrows, carts, trucks or other vehicles - - (*for removing coke in gas works.*)	370	7th Feb. 1866	Edward Price.
Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (*Communicated by Guillaume Lemaire Malherbe.*)	444	13th Feb. 1866	Montague Richard Leverson.
Economizing the heat of gas producers - -	497	16th Feb. 1866	William Clay.
Improved apparatus for carburetting air and gas -	498	16th Feb. 1866	Edward John Cowling Welch.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein.	513	17th Feb. 1866	Joshua Kidd.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes. (*for purifying gas.*)	642	3rd March 1866	Victor Larnaudès.
Apparatus employed in producing illuminating gas from inflammable and volatile liquids.	669	5th March 1866	Thomas Clayton.
Certain improvements in the treatment and utilization of the residual liquor arising from the production of chlorine gas. (*see* "CHLORINE.")	753	13th March 1866	William Francis Deane.
Obtaining illuminating gas - - -	769	15th March 1866	George M'Kenzie.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GAS, &c.—*continued.*			
Improvements applicable to the treatment of the substances used in the purification of gas. (*Communicated by Herr Doctor Deicke.*)	862	23rd March 1866	William Edward Newton.
Construction of coke ovens (*and making gas.*)	919	29th March 1866	Charles Pardoe.
Purification of coal gas	1116	20th April 1866	John Leigh.
Manufacture of gas	1156	24th April 1866	George Fitzjames Russell. William Henry Carbines.
Manufacture of gas	1162	25th April 1866	Alfred Upward. Honble Arthur Auckland Cochrane.
Furnaces and apparatus for separating heated gases, fumes or vapours from each other, and from solid or liquid bodies	1173	26th April 1866	William Edmond. Adolf Gurlt.
An improved apparatus for purifying the lighting gas resulting from the distilling of coal.	1233	1st May 1866	Guillaume Charles Denis.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom	1320	8th May 1866	James Lee Norton. Alfred Giles.
Improved apparatus for manufacturing illuminating gas. (*Communicated by Levi Stevens and Norman Carmi Munson.*)	1348	10th May 1866	Alfred Vincent Newton.
Certain improvements in generating and heating steam, gas and vapours, and in the machinery or apparatus employed therefor.	1410	18th May 1866	Julian Bernard.
Manufacture of gas	1468	25th May 1866	Ernst Büchner.
The purifying of ammoniacal liquor by an improved process, and the application of such purified ammoniacal liquor to the purifying of coal gas.	1615	14th June 1866	George Dunbar Malam.
A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. (*Communicated by Simon Stevens.*)	1628	15th June 1866	Benjamin Franklin Stevens.
Improvements in the manufacture of iron and cast-iron, and in the apparatus employed therefor. (*and producing gas.*)	1623	11th July 1866	Jules Nicolas Fournel.
A certain improved method of producing illuminating gas	1627	12th July 1866	William Glassford Walker. Robert Fraser Smith.
Means of fixing the covers of gas retorts	1854	16th July 1866	Alexander Roger Stark. James Woodman.
Mode of and apparatus for generating gas for lighting, heating and other purposes. (*Communicated by Jaroslav Zadora Paszkowski and Olgerd Babinski.*)	1888	20th July 1866	Marc Antoine François Mennons.
The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (*from protoxide of nitrogen.*) (*Communicated by Paul Schutzenberger.*)	1966	31st July 1866	Alfred Paraf.
Artificial material for producing gas for illuminating purposes.	2025	6th Aug. 1866	John Hamilton.
An improved apparatus for manufacturing illuminating gas, and producing bone black and other valuable residuum.	2067	11th Aug. 1866	John Israel Ensley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Gas, &c.—*continued.*			
The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (*Communicated by Charles Large.*)	2114	17th Aug. 1866	Edward Thomas Hughes.
Certain improvements in the method of purifying gas, whereby its illuminating properties are improved, and in the apparatus connected therewith.	2201	27th Aug. 1866	William Pierce.
Manufacture of gas - - - - -	2400	18th Sept. 1866	Alexander Roger Stark.
Improvements in the manufacture of steel and in the apparatns employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Berard.
A new or improved artificial coal or fuel - -	2449	24th Sept. 1866	Arthur Francis Stoddard.
Construction and arrangement of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.	2528	1st Oct. 1866	Percival Ashton Batchelor.
Means or apparatus employed in carburetting gas - - - - - - -	2558	4th Oct. 1866	David Henry Saul. Henry Prittie Armstrong.
Making gas and coke - - - - -	2733	23rd Oct. 1866	James Greenshields.
Improvements in the preparation of deodorizing materials and in the manufacture of gas.	2756	25th Oct. 1866	Henry Phillips.
Manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (*Communicated by William Elmer, M.D.*)	2759	25th Oct. 1866	George Tomlinson Bousfield.
Improvements in the treatment or distillation of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.	2788	29th Oct. 1866	Charles McBeath.
Doors or closures of gas retorts - - -	2827	31st Oct. 1866	James John Holden. Sealy James Best.
Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.
Means for operating on air or aëriform fluids by hydrocarbons, for purposes of illumination.	2873	6th Nov. 1866	Nathaniel Fortesque Taylor.
Improvements in the manufacture of coke and the small coke called breezes, and in the manufacture of coal gas. (*Communicated by August Conrad Dewies.*)	2909	8th Nov. 1866	George Shaw.
A new and improved method or process for converting iron into steel by the action of certain gases, and for producing gases for such purpose.	3111	26th Nov. 1866	Thomas Jabez Barron.
The manufacture of gas and the preparation of fuel - - - - - -	3126	27th Nov. 1866	John Tomlin. Charles Hook.
A process and apparatus for producing jointly or separately oxygen and chlorine, from the same chemical substance and in the same apparatus.	3171	3rd Dec. 1866	Jules Theodore Anatole Mallet.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam. (*distillation of coal, &c.*)	3179	3rd Dec. 1866	John Ambrose Coffey.

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Gas, &c.—*continued.*			
Improvements applicable to the treatment of the substances used in the purification of gas. (*Communicated by Herr Doctor Deicke.*)	862	23rd March 1866	William Edward Newton.
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Furnaces and apparatus for separating heated gases, fumes or vapours from each other, and from solid or liquid bodies - - - -	1173	26th April 1866	William Edmond. Adolf Gurlt.
An improved apparatus for purifying the lighting gas resulting from the distilling of coal.	1233	1st May 1866	Guillaume Charles Denis.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom - - - - -	1320	8th May 1866	James Lee Norton. Alfred Giles.
Improved apparatus for manufacturing illuminating gas. (*Communicated by Levi Stevens and Norman Carmi Munson.*)	1348	10th May 1866	Alfred Vincent Newton.
Certain improvements in generating and heating steam, gas and vapours, and in the machinery or apparatus employed therefor.	1410	18th May 1866	Julian Bernard.
Manufacture of gas - - - -	1468	25th May 1866	Ernst Büchner.
The purifying of ammoniacal liquor by an improved process, and the application of such purified ammoniacal liquor to the purifying of coal gas.	1615	14th June 1866	George Dunbar Malam.
A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. (*Communicated by Simon Stevens.*)	1628	15th June 1866	Benjamin Franklin Stevens.
Improvements in the manufacture of iron and cast-iron, and in the apparatus employed therefor. (*and producing gas.*)	1823	11th July 1866	Jules Nicolas Fournel.
A certain improved method of producing illuminating gas - - - - -	1827	12th July 1866	William Glassford Walker. Robert Fraser Smith.
Means of fixing the covers of gas retorts - -	1854	16th July 1866	Alexander Roger Stark. James Woodman.
Mode of and apparatus for generating gas for lighting, heating and other purposes. (*Communicated by Jaroslav Zadora Paszkowski and Olgerd Sabinski.*)	1888	20th July 1866	Marc Antoine François Mennons.
The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (*from protoxide of nitrogen.*) (*Communicated by Paul Schutzenberger.*)	1966	31st July 1866	Alfred Paraf.
Artificial material for producing gas for illuminating purposes.	2025	6th Aug. 1866	John Hamilton.
An improved apparatus for manufacturing illuminating gas, and producing bone black and other valuable residuum.	2067	11th Aug. 1866	John Israel Ensley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Gas, &c.—*continued.*			
The application of chlorine for the condensation of nitrous gas, and improvements in the apparatus connected therewith. (*Communicated by Charles Large.*)	2114	17th Aug. 1866	Edward Thomas Hughes.
Certain improvements in the method of purifying gas, whereby its illuminating properties are improved, and in the apparatus connected therewith.	2201	27th Aug. 1866	William Pierce.
Manufacture of gas - - - - -	2400	18th Sept. 1866	Alexander Roger Stark.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Bérard.
A new or improved artificial coal or fuel - -	2449	24th Sept. 1866	Arthur Francis Stoddard.
Construction and arrangement of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.	2528	1st Oct. 1866	Percival Ashton Batchelor.
Means or apparatus employed in carburetting gas - - - - - - -	2558	4th Oct. 1866	David Henry Saul. Henry Prittie Armstrong.
Making gas and coke - - - - -	2733	23rd Oct. 1866	James Greenshields.
Improvements in the preparation of deodorizing materials and in the manufacture of gas.	2756	25th Oct. 1866	Henry Phillips.
Manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (*Communicated by William Elmer, M.D.*)	2759	25th Oct. 1866	George Tomlinson Bousfield.
Improvements in the treatment or distillation of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.	2788	29th Oct. 1866	Charles McBeath.
Doors or closures of gas retorts - - -	2827	31st Oct. 1866	James John Holden. Sealy James Best.
Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.
Means for operating on air or aëriform fluids by hydrocarbons, for purposes of illumination.	2873	6th Nov. 1866	Nathaniel Fortesque Taylor.
Improvements in the manufacture of coke and the small coke called breezes, and in the manufacture of coal gas. (*Communicated by August Conrad Dewies.*)	2909	8th Nov. 1866	George Shaw.
A new and improved method or process for converting iron into steel by the action of certain gases, and for producing gases for such purpose.	3111	26th Nov. 1866	Thomas Jabez Barron.
The manufacture of gas and the preparation of fuel - - - - - - -	3126	27th Nov. 1866	John Tomlin. Charles Hook.
A process and apparatus for producing jointly or separately oxygen and chlorine, from the same chemical substance and in the same apparatus.	3171	3rd Dec. 1866	Jules Theodore Anatole Mallet.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam. (*distillation of coal, &c.*)	3179	3rd Dec. 1866	John Ambrose Coffey.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GAS, &c.—*continued.*			
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel. (*gas generating and heating apparatus.*)	3203	5th Dec. 1866	Thomas Jonas Chubb.
Apparatus used in the manufacture of gas -	3226	7th Dec. 1866	Alexander Colvin Fraser.
Manufacture of gas for illuminating and heating purposes.	3300	15th Dec. 1866	Edward Meldrum.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting and heating, as a motive-power. (*Communicated by Alexandre Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.
For carbonic acid gas, *see* "AËRATING." For nitrous acid gas, *see* "ACIDS."			
GAS AND OTHER BURNERS AND REGULATORS; GAS FITTINGS; LIGHTING GAS; PREVENTING ESCAPE OF GAS.			
An improved extensible apparatus for the passage of gases and fluids, especially adapted for gasaliers. (*Communicated by Edmond Robin and Henri Robin.*)	15	2nd Jan. 1866	Richard Archibald Brooman.
Means or apparatus employed in the combustion of gas in gas stoves and burners employed in heating and cooking.	110	13th Jan. 1866	John Calvin Thompson.
Lamps - - - - - - (*Communicated by Anson Henri Platt.*)	113	13th Jan. 1866	William Robert Lake.
Gas-burners - - - - - (*Communicated by M. Ferdinand Küp.*)	133	15th Jan. 1866	George White.
Gas-burners - - - - - (*Communicated by Julius Brönner.*)	185	20th Jan. 1866	William Bünger.
Means and apparatus of communicating motion or power from the engine of a train to any part of the train. (*turning on the gas.*)	289	30th Jan. 1866	Henry Shaw.
Gas pipes - - - - - - (*preventing leakage.*)	316	1st Feb. 1866	John Macintosh. William Boggett.
Gas-burners - - - - -	416	10th Feb. 1866	James John Shedlock.
Improvements in signal, street and other lamps, and in gas-burners.	619	28th Feb. 1866	Richard Clark.
Gas-burners - - - - -	706	8th March 1866	Samuel Shaw Brown.
Means or apparatus for obtaining light by the combustion of magnesium.	729	9th March 1866	Richard Larkin.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes, and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GAS BURNERS, &c.—*continued.*			
An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (*Communicated by James Burnam Sweet.*)	1120	20th April 1866	George Haseltine.
Improvements in or connected with lamps and burners, and an improved apparatus for lighting lamps.	1229	1st May 1866	Richard Hugh Hughes.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom - - - - - -	1320	8th May 1866	James Lee Norton. Alfred Giles.
Governors or apparatus for regulating and controlling the pressure and flow of illuminating gas or other gaseous fluids.	1338	10th May 1866	Orlando Brothers.
Improvements in gas regulators applicable to burners and meters.	1488	28th May 1866	David Duff.
Machinery for making the fittings for gas, steam and water pipes.	1776	4th July 1866	John Brotherton.
Improvements in the manufacture of water and steam cocks or stop valves, applicable also for other like purposes.	1787	6th July 1866	William Chesney.
An improved gas-burner - - - - (*Communicated by Julius Brönner.*)	1866	17th July 1866	William Edward Gedge.
Gas pendents, gasaliers and gas-brackets - -	1889	20th July 1866	Francis Joseph Rowley.
Packing for steam, water, air and gas tight joints -	2064	11th Aug. 1866	John Edwin Keirby.
Apparatus for regulating the supply of gas -	2277	5th Sept. 1866	William Thomas Sugg.
Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas-burners or meters - - - - -	2357	13th Sept. 1866	George Henderson. David McNeil.
Fish-tail gas-burners - - - - -	2537	3rd Oct. 1866	Matthew West.
Improved fixing of draught apparatuses and their respective supports on all kinds of gas-burners, and improved gas-burners and draught apparatuses in connection with that.	2679	17th Oct. 1866	Julius Brönner.
Reflectors and ventilators in connection with gas and other lights.	2841	2nd Nov. 1866	George Watson.
Improvements in illuminating lighthouses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.
Certain improvements in coal oil lamps - - (*Communicated by George Hall.*)	2958	12th Nov. 1866	Alfred Vincent Newton.
Apparatus for conveying and regulating the supply of gas.	3258	11th Dec. 1866	Edmund Small Cathels.
For gas pipes, *see* "PIPES."			
GAUGES, SAFETY PLUGS, WATER LEVEL INDICATORS.			
Vacuum apparatus to be employed for the cure or relief of inflammatory diseases. (*vacuum gauge.*)	414	10th Feb. 1866	Victor Theodore Junod.
Improved means for indicating the quantities of liquids contained in casks and other vessels.	705	8th March 1866	James Tomlinson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GAUGES, &c.—*continued.*			
An improved construction of gravitating level (*spirit or water level.*) (*Communicated by Henri Arquiene René Môen.*)	749	12th March 1866	Alfred Vincent Newton.
Apparatus for indicating and registering the variations in pressure and working of the steam in the cylinders of steam-engines. (*Communicated by Mr Pietro Monte.*)	923	31st March 1866	George White.
Improvements in steam gauges, and applicable to other pressure indicators.	1006	9th April 1866	Robert William Thomson.
Apparatus for the prevention of steam-boiler explosions	1197	27th April 1866	Edwin Bray. John Crosby Hargreaves.
An improved steam gauge (*Communicated by Emmett Quinn.*)	1675	23rd June 1866	George Davies.
An improved apparatus for registering the flow of water or other liquids or fluids through pipes or orifices.	1696	26th June 1866	Alfred Clayton.
Apparatus for filling and corking bottles	1817	11th July 1866	William Thompson.
Self-acting steam and liquid safety gauges	2161	23rd Aug. 1866	John Ambrose Coffey.
An improved manometrical sounding apparatus (*Communicated by Ernest Dubois.*)	2531	2nd Oct. 1866	Frederick Tolhausen.
Safety valves	2539	3rd Oct. 1866	John Russell Swann.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes	2802	30th Oct. 1866	John Varley.
A new or improved spring regulator applicable to various industrial purposes, also applicable as a pressure gauge.	2976	14th Nov. 1866	Julien François Belleville.
Improvements in and connected with steam-engines.	3143	29th Nov. 1866	Joshua Field.
Steam-boilers (*float or indicator.*)	3272	13th Dec. 1866	Patrick Heyns.
Apparatus connected with steam-boilers, for regulating the evaporating power thereof and to obtain greater safety in their use (*water level indicator.*)	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
GLASS; APPLICATIONS OF GLASS.			
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*forming glass.*)	200	22nd Jan. 1866	Charles Gregory Penney.
An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass	208	22nd Jan. 1866	Pynson Wilmot Bennitt. Joseph Matthews.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware	399	9th Feb. 1866	Edward Bevan. Abel Fleming.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GLASS, &c.—*continued.*			
Iron safes - - - - - - (*vitrifying.*)	552	23rd Feb. 1866	John Coope Haddan. Herbert John Haddan.
Rose engines - - - - (*for ornamenting goblets, &c.*) (*Communicated by Anton Schwitter and Lewis Schwitter.*)	653	3rd March 1866	William Clark.
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
Production of white or of semi-transparent glass - (*Communicated by Dr Hugo Kunheim.*)	983	5th April 1866	John Henry Johnson.
An improved furnace or oven for the cooling of window glass, and apparatus to be used therewith.	1159	25th April 1866	Désiré Bievez.
Manufacture of glass - - - - - -	1297	7th May 1866	Antoine Pocheron.
Improvements in or applicable to machinery or apparatus for spinning worsted or other fibrous substances, known as cap-frames - - - (*glass washers.*)	1553	5th June 1866	James Marsland Tankard. John Cockcroft.
Improvements in the method of burning coals (whether large or small coals) coal dust, coke dust, charcoal, wood and other combustible substances, as also hydro-carbons and gases, and in the arrangement of the furnaces applicable thereto. (*glass furnaces.*)	1594	12th June 1866	Thomas Joseph Leigh.
Miners' lamps - - - - - -	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.
Locks - - - - - - - (*glass covering plate.*)	1635	16th June 1866	Archibald Macdonald.
Paving roads, streets, yards or other similar ways or surfaces. (*using blocks of glass.*)	1663	22nd June 1866	Charles Philippe Henry.
Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (*Communicated by Antoine Cuttier.*)	1673	22nd June 1866	Charles De Grelle.
Improved apparatus for treating corn and other materials. (*or for glass works.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Improvements in the manufacture of articles of pressed glass and in machinery or apparatus connected therewith.	1857	16th July 1866	Thomas George Webb.
Tipping walking sticks, and the sticks and ribs of sunshades, parasols and umbrellas, with glass.	1961	30th July 1866	John Jackson Wheeler.
An improvement in moulding or pressing glass -	1994	2nd Aug. 1866	John Thomas. Haden Richardson.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Hadyn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
An improved mode of and apparatus for printing on glass and other materials. (*Communicated by Isaac Lewis Miles.*)	2040	8th Aug. 1866	George Davies.
Violins, violas, violoncellos and guitars - -	2071	13th Aug. 1866	Henry Bell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GLASS, &c.—*continued.*			
Furnaces for the manufacture of glass, commonly called melting furnaces.	2278	5th Sept. 1866	Thomas George Webb.
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
Furnaces for treating metals and other matters - (*Communicated by Louis Adolphe Bon.*)	2527	1st Oct. 1866	William Clark.
Separating sulphur from soda waste - - (*residue useful in glass making.*) (*Communicated by Panajota Wilhelm Hofmann.*)	2593	8th Oct. 1866	George Tomlinson Bousfield.
Lamp glasses or chimneys - - - - (*Communicated by Joseph Lallemand and Godefroi Auguste Guillaume Wagener.*)	2823	31st Oct. 1866	William Clark.
A chemical decoration on gold, silver and other similar metals and colours, on porcelain, glass-wares, crystal-wares, delft-wares, potters' wares and similar matters, called 'Grüne's proceeding.'	3002	15th Nov. 1866	Wilhelm Grüne.
Ornamenting glass - - - - -	3270	13th Dec. 1866	John Robinson.
Marking boards for billiard, pool, bagatelle and other such games.	3294	15th Dec. 1866	William Henry Burroughes.
An improved composition for cleaning glass and other smooth and bright surfaces.	3423	29th Dec. 1866	William Brough Berrey.
See also "BOTTLES."			
GLOVES.			
An improved fastening for gloves and other articles (*Communicated by Emil Bertin.*)	998	7th April 1866	Clinton Edgcumbe Brooman.
Manufacture of tubular or double fabrics in warp machinery. (*for gloves.*)	1083	17th April 1866	Thomas Haimes.
Attaching buttons, clasps, hooks and eyes or other similar fastenings to leather or other partially elastic or yielding materials.	1260	4th May 1866	Edward Field.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*glove boxes.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Manufacture of gloves - - - - (*Communicated by Edouard Vidil.*)	2844	2nd Nov. 1866	Richard Porter Junr.
Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.	2892	7th Nov. 1866	James Clement Newey.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GOVERNORS AND INDICATORS OF SPEED AND POWER FOR STATIONARY ENGINES AND MACHINERY; STARTING, STOPPING AND REVERSING APPARATUS; MACHINERY-BREAKS.			
Winding apparatus - - - - - (*stopping spindles.*)	141	16th Jan. 1866	Matthew Andrew Muir. James McIlwham.
An improved construction of clutch for driving machinery.	406	9th Feb. 1866	William Clissold.
Apparatus for calendering, mangling or finishing - (*reversing valve motion.*)	643	3rd March 1866	Robert Walker.
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*starting, stopping and reversing.*) (*Communicated by Robert Creuzbaur.*)	657	3rd March 1866	John Bischoff.
Dredging and elevating machinery - - - (*apparatus for stopping.*)	704	8th March 1866	Sylvester Franklin Schoonmaker.
An improved fly for moderating or regulating the movements of wheelwork.	870	24th March 1866	Philipp Stieffel.
An improved mode of controlling or governing the speed of machinery, more especially applicable to machines for paying out submarine telegraph cables.	882	24th March 1866	Thomas Silver.
Slide valves and reversing gear of engines worked by steam, air or gases.	1038	12th April 1866	William Bond.
Improved machinery for warping or preparing warps for weaving. (*stopping the machine.*)	1103	19th April 1866	Archibald Turner.
Engines worked by steam or other fluid - -	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Improvements in governing apparatus, applicable for regulating the speed of all kinds of machinery, the motive force acting on which can be altered by adjusting a valve or sluice.	1369	14th May 1866	Robert Band Pope.
Centrifugal governors - - - - (*Communicated by David Shive.*)	1379	15th May 1866	George Haseltine.
Machinery for turning, shaping and cutting metal - (*reversing motion.*)	1677	23rd June 1866	Thomas Dunn.
Improvements in brick making machines, and in the machinery or apparatus for operating the same. (*controlling, stopping and starting.*) (*Communicated by Isaac Gregg.*)	1739	29th June 1866	John Henry Johnson.
Governors - - - - - - (*Communicated by Léon Foucault.*)	1777	4th July 1866	Michael Henry.
An improved lift, hoist or mechanical elevator, adapted for hotels, warehouses, railway stations and other places, and intended to facilitate and render easy the ascent of persons and goods.	1845	13th July 1866	Peter Ellis.
Rotary engines - - - - - - (*reversing.*) (*Communicated by Truman Merriam and James Cushing.*)	1958	28th July 186	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GOVERNORS, &c.—*continued.*			
Improved machinery to be employed in the manufacture of banding or twine from cotton, worsted, linen or silk "cop bottoms," which machinery is also applicable to the manufacture of banding or twine from threads prepared for that purpose.	2074	13th Aug. 1866	Edward Whalley.
An improved friction clutch for starting and stopping machinery. (*Communicated by James Brown.*)	2197	25th Aug. 1866	Corey M'Farland.
Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery. (*reversing excentrics.*)	2566	5th Oct. 1866	John Cole Chapman.
Heated air-engines - - - - -	2633	11th Oct. 1866	Henry Messer.
Lithographic, zincographic and typographic printing machines - - - - - (*stopping the cylinder.*)	2803	30th Oct. 1866	Charles Henry Gardner. Joseph Bickerton.
Apparatus for transmitting and controlling motion (*coupling and break.*)	2867	5th Nov. 1866	Robert Anthony Hardcastle.
Improvements in slide valves and governors of steam and other engines, and in apparatus connected therewith.	2902	7th Nov. 1866	Edmund Samuel Hindley.
Machines for doubling cotton and other fibrous materials. (*applying the break.*)	2968	13th Nov. 1866	John Harding.
A new or improved spring regulator applicable to various industrial purposes, also applicable as a pressure gauge. (*hydraulic or gaseous break.*)	2976	14th Nov. 1866	Julien François Belleville.
Governors - - - - - -	3052	20th Nov. 1866	Edward Henry Knight.
Machinery for spinning and doubling - - (*stopping the backing off.*)	3155	1st Dec. 1866	Peter M'Gregor.
An improved pterotype or machine for writing with type. (*reversing movements.*)	3163	1st Dec. 1866	John Pratt.
Apparatus for the manufacture of crucibles and other hollow articles from plastic materials - (*stop or break for jigger.*)	3292	15th Dec. 1866	Thomas Vaughan Morgan. Edwin Hyles.
Cable stoppers - - - - - -	3319	17th Dec. 1866	Lieut.-Colonel James Baker. John Imray.
Improvements in steering apparatus, referring to a steering telegraph and rudder indicator, and a steam steering engine.	3321	18th Dec. 1866	John M'Farlane Gray.
Machinery for winding yarn and thread - - (*self-acting break.*)	3362	21st Dec. 1866	Robert Hall. Samuel Standring Hall.
Certain improvements in 'governors' or regulators for steam or other motive-power engines -	3416	29th Dec. 1866	Samuel Smith. John William Jackson.
Improvements in the method of effecting the cut-off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (*Communicated by George Herman Babcock and Stephen Wilcox, Jun'.*)	3452	31st Dec. 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GRINDING AND CRUSHING CORN, GRAIN, SEEDS, &c.; DRESSING FLOUR; MILL-STONES; DECORTICATING GRAIN; GRINDING DRIED MEAT.			
Mills for grinding corn and other grain - -	37	5th Jan. 1866	John Jackson. Samuel Jackson.
Mills for grinding wheat and other grain - -	695	7th March 1866	Edwin Roberts. Henry Roberts.
Improvements in cleaning cotton seeds from fibrous material, and in preparing such seeds for the process of decortication.	781	15th March 1866	Frederick Herbert Gossage.
An improved apparatus for sifting sugar or flour or other meals, or separating the smaller from the grosser particles in sauces and condiments.	909	29th March 1866	Morris Myers.
Apparatus for decorticating rice and other grain - (*Communicated by Edmond Théodore Ganneron.*)	917	29th March 1866	Henry Edward Newton.
Mills for crushing, grinding and other purposes - (*Communicated by Jean Baptiste Bernard, Charles Laurent, Emile Peugeot and Jules Peugeot.*)	1048	13th April 1866	William Clark.
Apparatus for sifting flour and other substances - (*Communicated by Joseph Wells.*)	1073	16th April 1866	John Henry Johnson.
Improvements in feeding apparatus applicable to mills and machines for grinding, kibbling or crushing grain and other substances - -	1213	30th April 1866	Richard Robert Riches. Charles James Watts.
Mills for grinding wheat and other grain - -	1238	2nd May 1866	James Morris.
Steps for the spindles of spinning frames - - (*or grinding mills.*) (*Communicated by Thomas Marsh.*)	1279	4th May 1866	George Tomlinson Bousfield.
Improved apparatus for decorticating rice and other grain. (*Communicated by Joseph Perre.*)	1586	11th June 1866	Hector Auguste Dufrené.
Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (*Communicated by Eugéne Pierre Barrabé.*)	1724	28th June 1866	John Henry Johnson.
Mills for grinding corn and other hard substances -	1841	13th July 1866	Walkden Thompson. Thomas Stather.
Machinery for cutting dove-tail joints - - (*for mill hoppers.*) (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
An improved portable mill, parts of which are applicable to mill stones generally. (*Communicated by François Cailleaux.*)	2142	21st Aug. 1866	William Edward Gedge.
Improvements in treating carrigeen or Irish moss, sea-weed and like plants, to reduce them into a state of powder or meal, and in arrangements and apparatus to be used for the purpose.	2148	22nd Aug. 1866	William Weild.
Machinery and tools for cutting slate, stone, marble and other minerals - - - (*grindstones.*)	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
Cotton seed hullers or decorticating machines -	2519	29th Sept. 1866	Pierre Paul Joseph Martin.
Mills for grinding, crushing, splitting and hulling or shelling grain and other substances.	2643	12th Oct. 1866	John Patterson.
Fastening the mouths of corn, flour and other sacks	2760	25th Nov. 1866	William Macdonnell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GRINDING CORN, &c.—*continued.*			
Improvements in the treatment and preservation of grain, pulse, seeds and flour or meal, and in the apparatus or means employed therein. (*Communicated by Wilhelm Ramann.*)	2798	30th Oct. 1866	John Henry Johnson.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.
Improved apparatus applied to millstones for grinding wheat and other grain. (*Communicated by Pierre Baillargeon.*)	3384	22nd Dec. 1866	William Edward Gedge.
GRINDING AND CRUSHING MINERALS, CLAY, FIBROUS PLANTS, &c.; BREAKING STONE.			
Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state - - - - -	75	10th Jan. 1866	James Clunan. Noah Nightingale.
Machinery for crushing and pulverizing ores and other hard substances.	241	24th Jan. 1866	James Jones.
Machinery for crushing quartz, ores and other substances. (*Communicated by Abraham Karnes.*)	275	27th Jan. 1866	August Bryant Childs.
Machinery or apparatus for reducing, pounding and softening hard or tough substances.	691	7th March 1866	John Patterson.
Machinery for breaking stones and crushing ores and other substances.	1028	11th April 1866	James Frost.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel.	1041	12th April 1866	John James Bodmer.
Machinery for breaking stones, ores and other hard substances.	1064	14th April 1866	Sylvester Franklin Schoonmaker.
Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (*Communicated by Louis Bataille.*)	1079	17th April 1866	Clinton Edgcumbe Brooman.
Improvements in machinery or apparatus for stamping, crushing and pulverising ores and other hard substances, which improvements are applicable to power hammers. (*Communicated by William Wright.*)	2024	6th Aug. 1866	John Henry Johnson.
A new and improved metal-founders' blacking, and mode of treating or preparing the same.	2479	26th Sept. 1866	John Carrington Sellars.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*cement.*) (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GRINDING MINERALS, &c.—*continued.*			
Machinery or apparatus for grinding clay and such like substances.	3376	22nd Dec. 1866	Henry Goodfellow.
Rag grinding machines - - - - - (*Communicated by Joseph Maison.*)	3378	22nd Dec. 1866	Joseph Rhodes. William Sunderland Rhodes. Josiah Rhodes.
GRINDING AND SHARPENING; FLAT GRINDING AND POLISHING; GRINDING SURFACES; EMERY, SAND AND GLASS PAPERS AND CLOTHS.			
Improvements in the manufacture of fasteners for binding papers and for other like purposes, and in machinery to be used in the said manufacture. (*cutting and pointing blanks.*)	104	12th Jan. 1866	Alfred Henry Hart.
Machinery for the manufacture of nails and spikes (*pointing blanks.*)	146	16th Jan. 1866	George Mellor.
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*ash useful for polishing.*)	200	22nd Jan. 1866	Charles Gregory Penney.
A machine for making buttons from plastic materials, grinding, polishing and carding the same, parts of which can be used in grinding, polishing and carding other kinds of buttons.	244	24th Jan. 1866	Lodner Darrevontis Phillips.
Improvements in finishing the soles and heels of boots and shoes, and in apparatus employed for such purposes - - - - - (*burnishing.*)	251	25th Jan. 1866	Thomas Marshall. Henry Cooper Pretty.
Manufacture of files by means of machinery for smoothing and cutting them.	288	30th Jan. 1866	Jörgen Balthazar Dalhoff.
Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts - - -	293	30th Jan. 1866	Samuel Bradley Ardrey. Samuel Beckett. Walton Smith.
An improved substitute for emery to be used for cutting, grinding and polishing metal, marble, glass, precious stones and other hard substances	389	8th Feb. 1866	Robert Bond. William Joseph Bussell. Benjamin Samuel Fisher.
Machinery for grinding and equalizing the thickness of lithographic stones.	634	1st March 1866	William Conisbee.
Chaff cutting machines - - - - - (*sharpening the knives.*)	639	2nd March 1866	Edmund Winder Otway.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather.	748	12th March 1866	Charles Linford.
An improvement in the manufacture or preparation of substances and materials for polishing metallic and other surfaces.	750	13th March 1866	George Hindes Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GRINDING, SHARPENING, &c.—*continued.*			
Construction of brushes for polishing paper prepared for the manufacture of paper hangings.	805	19th March 1866	John Higginbottom.
Manufacture of leather cloth (*bronzing or burnishing.*)	907	29th March 1866	Thomas Storey. William Virgo Wilson.
An improved domestic polishing powder	955	4th April 1866	George Printy Wheeler.
Apparatus for cutting cork (*Communicated by Louis Sauvan.*)	963	4th April 1866	Michael Henry.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel. (*making grit for sand paper.*)	1041	12th April 1866	John James Bodmer.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel (*for dry grinding mills.*)	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*substance for polishing metals.*)	1568	7th June 1866	John Carrington Sellars.
Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (*Communicated by Antoine Cuttier.*)	1673	22nd June 1866	Charles De Grelle.
Improved machinery for facing or smoothing the surface of stone.	1730	29th June 1866	Thomas Smith.
Machinery or apparatus for grinding and polishing circular saws and other articles.	1812	11th July 1866	Edward M'Nally.
Machinery for burnishing or polishing enamelled paper. (*Communicated by Edwin Blood.*)	1921	24th July 1866	William Edward Newton.
Improved machinery for sharpening saws	1943	26th July 1866	Edward Hammond Bentall.
Improved machinery for sharpening saws	1984	1st Aug. 1866	John Parry. Richard Morris.
Apparatus for cutting, grinding and finishing marble and other similar materials. (*Communicated by James W. Maloy.*)	2092	15th Aug. 1866	William Brookes.
Improved apparatus for cleaning and polishing boots, shoes and knives.	2284	5th Sept. 1866	Reginald Samuel Mordaunt Vaughan.
Machinery or apparatus to be employed in the manufacture of fish hooks. (*pointing wire.*)	2368	14th Sept. 1866	John Bindley.
Improvements in machinery for grinding, stripping and cutting file blanks, part of which improvements is also applicable to grinding and polishing chisels, plane irons and other articles.	2385	17th Sept. 1866	James Dodge.
Machinery for turning or cutting and polishing screw nuts and other articles.	2392	18th Sept. 1866	John Thompson.
Forks, steels and knife sharpeners	2663	15th Oct. 1866	Ebenezer Stevens.
Machinery for compressing, rounding or pointing wires or rods to form pins, needles or other articles of metal	2714	20th Oct. 1866	Orin Lewis Hopson. Heman Porter Brooks.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GRINDING, SHARPENING, &c.—*continued.*			
Improvements in carding-engines and in apparatus for grinding the rollers or cylinders thereof.	2794	29th Oct. 1866	Samuel Faulkner.
Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles - - -	2800	30th Oct. 1866	Henry Churchman. Frederick Braby.
Improvements in the manufacture of emery and glass cloths, and in dressing and preparing woven fabrics for the same, and also in apparatus for cutting such cloths.	2911	8th Nov. 1866	Richard John Edwards.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*sharpening the knife.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - -	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Improved apparatus for setting steel pens -	3367	21st Dec. 1866	Michael Weber.
An improved composition for cleaning glass and other smooth and bright surfaces.	3423	29th Dec. 1866	William Brough Berrey.
GUNPOWDER AND EXPLOSIVE COMPOUNDS; POWDER FLASKS.			
An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fire-works and for other purposes. (*substitute for gunpowder.*)	309	31st Jan. 1866	Alexander Dembinsky.
Pyroxilin or gun cloth charges for all kinds of fire-arms.	845	22nd March 1866	William Allen Dixon.
Preparing and treating gun cotton - - -	953	3rd April 1866	Eustace Carey Prentice.
An improved explosive compound - - (*Communicated by Wilhelm Fehleisen and Ernst Fehleisen.*)	1341	10th May 1866	Johann Heinrich. August Bleckmann.
An improved combustible and inextinguishable compound - - - - - -	1411	18th May 1866	James Sharp. Robert Smith.
The application of a new material to the purpose of rendering gunpowder non-explosive.	1721	28th June 1866	Henry Davidson Plimsoll.
A new and improved explosive compound mixture - (*Communicated by Baron Alfred Antoine de Cantillon de Ballyhigue and Edward Cookes.*)	1940	26th July 1866	Henri Adrien Bonneville.
Preparation of bodies in which nitrogen is substituted for hydrogen - - - - - (*obtaining fulminating compounds.*)	1956	28th July 1866	Peter Griess. Heinrich Caro.
An improved explosive compound or powder -	2779	27th Oct. 1866	James Sharp. Robert Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUNPOWDER, &c.—*continued.*			
Fastenings of covers for powder flasks or cases used in naval gunnery - - - -	3198	5th Dec. 1866	Charles Marin Fontenoy. Jean Nicolas Dopfeld.
An improved explosive substance - - -	3293	15th Dec. 1866	Frederic William Reeves. John Bell Muschamp.
Gunpowder for mining purposes - - -	3310	17th Dec. 1866	Gustav Adolph Neumeyer.
GUTTA-PERCHA AND INDIA-RUBBER. (*Preparing, Treating, Vulcanizing.*)			
Working and treating india-rubber, gutta-percha and other similar gums. (*Communicated by Frank Marquard.*)	300	31st Jan. 1866	William Robert Lake.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used.	748	12th March 1866	John Macintosh.
The application and use of a certain material to be employed in admixture with india-rubber, oils, resins or bituminous matters, which combinations may be applied to various useful purposes.	871	24th March 1866	James Buckingham.
Methods of solidifying the juice or sap of the bullet tree, otherwise known as balata juice, and the juices or saps of trees yielding similar or analogous elastic products. (*Communicated by Sydney Rupert Pontifex, F.C.S.*)	934	2nd April 1866	Edward Primerose Howard Vaughan.
Treating india-rubber and india-rubber compounds, and also india-rubber fabrics.	1257	3rd May 1866	Stephen Bourne.
Machinery and apparatus used in the manufacture of sheets of india-rubber.	1305	8th May 1866	Charles Moseley.
Machinery for cutting india-rubber - -	1431	21st May 1866	John Macmillan Dunlop.
An improved process of utilizing waste vulcanized india-rubber and manufacturing hard rubber therefrom. (*Communicated by Charles M'Burney.*)	1649	19th June 1866	George Tomlinson Bousfield.
Dissolving or treating rubber, gutta-percha, copal and similar gums or resins and their compounds.	1667	22nd June 1866	Edmund Hunt.
Improvements in waterproofing textile fabrics, and in preserving leather, cork, wood and vulcanized india-rubber, also terra cotta, stucco, brick and like substances.	2084	14th Aug. 1866	Charles Francis Baxter.
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats.	2418	20th Sept. 1866	Charles Crump.
An improved process for the preparation of india-rubber and kindred gums.	2707	19th Oct. 1866	Edwin Lindsey Simpson.
Machinery for cutting india-rubber - -	3012	16th Nov. 1866	John Macmillan Dunlop. Frank Crossley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUTTA-PERCHA AND INDIA-RUBBER AS APPLIED IN VARIOUS MANUFACTURES.			
A new or improved material or composition of materials suitable as a substitute for leather in various applications. (*Communicated by Philipp Wenzel.*)	4	1st Jan. 1866	Martin Löhren.
Manufacture of kamptulicon and similar fabrics -	11	1st Jan. 1866	Caleb Tayler. William Dyer Harry. John Dooley.
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages, and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
Improvements in printing and in apparatus employed therein.	73	9th Jan. 1866	Alfred Leighton.
Protectors for watches, portemonnaies and pocket books.	123	13th Jan. 1866	Henry Gottheimer.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.
An improved method of protecting the contact surfaces of vessels, utensils and articles of domestic use and their supports.	173	19th Jan. 1866	Joseph Alfred Nicholson.
Buffers, drawsprings and bearing springs - - (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (*Communicated by Isaac Heer.*)	348	5th Feb. 1866	Charles Denton Abel.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes.	369	7th Feb. 1866	Uriah Scott.
Improvements in meters for measuring and registering the flow of liquids, part of which improvements is also applicable to regulating the flow of steam.	375	7th Feb. 1866	Joseph Lewis.
Spring bed bottoms - - - - - (*Communicated by John Jay Haley.*)	380	8th Feb. 1866	Samuel John Salkeld.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships, against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
Manufacture of stiffenings for the heels of boots and shoes. (*Communicated by John Gillingham Felt.*)	397	8th Feb. 1866	Nathaniel Henry Felt.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUTTA-PERCHA, &c.—*continued.*			
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials to be spun. (*covering with caoutchouc.*)	400	9th Feb. 1866	Joseph Sutcliffe.
Improvements in the reefing of sails and in the machinery or apparatus connected therewith.	420	10th Feb. 1866	Jonathan Davidson.
Manufacture of fabrics composed of india-rubber and cotton or other vegetable fibres.	499	16th Feb. 1866	James Heywood Whitehead.
Fountains - - - - - - -	544	21st Feb. 1866	William Donald Napier, M.R.C.S.
Manufacture of elastic reeds and combs for weaving and other purposes.	555	23rd Feb. 1866	James Pass.
An improvement in the manufacture of waterproof paper.	675	6th March 1866	Reuben German Allerton.
Cricket balls, racket, tennis and foot balls - -	739	10th March 1866	Charles Huntley.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*application of vulcanised india-rubber to tea-pot handles.*)	740	10th March 1866	Philip Henry Ashberry.
Manufacture of elastic gusset webs - - -	777	15th March 1866	James Cole Junr.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.
Galvanic batteries - - - - -	885	24th March 1866	Walker Moseley.
Carts for distributing water, liquid manure and other fluids over roads and lands - - -	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
Improved adhesive compositions for attaching copper or other sheathing to iron, wood or other ships or vessels.	1044	13th April 1866	Henry Benson James.
Cues, rests and other implements used in playing the game of billiards, bagatelle and other similar games.	1075	16th April 1866	George Pomeroy Dodge.
Valves for steam and other fluids - - -	1113	20th April 1866	Charles James Waddell. Hugh Cameron Bell Muir.
Joints or connections for pipes - - - (*Communicated by Anton Richter and Romuald Bozek.*)	1157	24th April 1866	Charles Denton Abel.
Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (*Communicated by Taliaferro Preston Shaffner.*)	1177	26th April 1866	George Haseltine.
Improvements in or applicable to carriage, buffer, draw and other springs - - - -	1289	5th May 1866	Harry Statham. Benoni Collins.
A new system of application of pads of india-rubber or other elastic materials. (*Communicated by Major General Angelini.*)	1295	7th May 1866	Vital de Tivoli.
Method and means of securing and discharging the contents of pipes and vessels.	1330	9th May 1866	Samuel Middleton.
Machinery used in raising and forcing water and other fluids - - - -	1475	26th May 1866	David Thomson. William Porter.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUTTA-PERCHA, &c.—*continued.*			
A new or improved kind of perforated elastic-faced cellular target.	1491	29th May 1866	Joseph Hall.
Improved methods of rendering the soles or bottoms and heels of boots and shoes more durable.	1502	29th May 1866	James Wadsworth.
Construction of horse shoes - - - -	1547	4th June 1866	John Sainty.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Improved apparatus for decorticating rice and other grain. (*Communicated by Joseph Perre.*)	1586	11th June 1866	Hector Auguste Dufrené.
Artificial teeth - - - - - -	1662	22nd June 1866	Thomas Godfrey.
Combining india-rubber or compounds thereof with metallic substances, for the manufacture of valves and other uses.	1740	29th June 1866	Henry Griffin.
Manufacture of card cloth - - - - -	1826	12th July 1866	Joseph Moseley.
Elastic fabrics - - - - -	1870	18th July 1866	John Macintosh. William Boggett.
Apparatus for lowering and raising window-blinds, curtains, maps and the like - - - -	1944	26th July 1866	John William Hoffman. George Rowe Wilson.
Mode of securing corks and stoppers in the necks or mouths of bottles, jars and other vessels. (*Communicated by Arthur Barbarin.*)	2007	3rd Aug. 1866	John Henry Johnson.
Certain improvements in stamps for producing impressions, which are also applicable to cylinder printing - - - - - - (*Communicated by Jabez Elverson.*)	2063	11th Aug. 1866	James Collins. Andrew Dwight Campbell.
Packing for steam, water, air and gas tight joints.	2064	11th Aug. 1866	John Edwin Keirby.
A pickle piercer - - - - - - -	2098	15th Aug. 1866	John William Hoffman. George Rowe Wilson.
Kites - - - - - - - -	2099	15th Aug. 1866	John William Hoffman. George Rowe Wilson.
Manufacture of elastic and other fabrics - -	2100	15th Aug. 1866	William Shaw. James Connell.
Construction of springs suitable for railway carriages and for various other uses.	2140	21st Aug. 1866	John Murphy.
Manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture and ornaments thereon. (*Communicated by Henry Ludwig Danchell.*)	2180	24th Aug. 1866	Frederick Hahn Danchell C.E.
The elastic tubular india-rubber air chambered pannels.	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Joints or connections for pipes - - (*Communicated by Anton Richter and Romuald Bozek.*)	2244	31st Aug. 866	Charles Denton Abel.
Fixing the soles and heels of boots and shoes -	2260	3rd Sept. 1866	Ephraim Lamb. Samuel Middleton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUTTA-PERCHA, &c.—*continued.*			
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
An improved indicator or register - - - (*Communicated by Etienne Théophile Prioux.*)	2340	12th Sept. 1866	William Edward Gedge.
An improved material or substance to be used instead of whalebone in the manufacture of whips, whip handles, riding and walking sticks and such like articles.	2371	15th Sept. 1866	John Keyston.
An improved elastic waist for boots, shoes, slippers, clogs and sandals.	2383	17th Sept. 1866	Edward Wall.
An improved machine for wringing and mangling -	2440	22nd Sept. 1866	Thomas Atkinson jun^{r}.
Reeds or combs for weaving or other purposes -	2444	22nd Sept. 1866	John Carter Ramsden.
Cornets and other similar musical instruments - (*Communicated by the Schreiber Cornet Manufacturing Company (Incorporated).*)	2468	25th Sept. 1866	William Edward Newton.
Refrigerators - - - - - -	2526	1st Oct. 1866	Alexander Mills Dix.
Manufacture of elastic mats and coverings for floors.	2541	3rd Oct. 1866	Thomas Forster.
An improved mode of and apparatus for folding and shaping belts or bands of india-rubber (or compound consisting partly of india-rubber) and woven fabric.	2555	4th Oct. 1866	George Pomeroy Dodge.
Improvements in the construction of bottles intended to contain malt liquors and other liquids, and in the mode of stoppering, unstoppering and drawing off the contents thereof, the said stopper being also applicable to bottles of the ordinary kind and other vessels employed to contain liquids, fluids and gases, either separately or in combination.	2572	6th Oct. 1866	William Dennis.
An improved funnel - - - (*Communicated by Emile de Fages de Latour.*)	2599	9th Oct. 1866	William Edward Gedge.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing, and placing, connecting and fastening together textile and other fabrics or materials so as to be sewn or stitched, or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
An improved machine for washing cloth and clothes	2688	18th Oct. 1866	James Miller.
An improved apparatus for stoppering bottles -	2833	1st Nov. 1866	Jules Becker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
GUTTA-PERCHA, &c.—*continued.*			
Manufacture of brushes and brush surfaces composed of india-rubber, gutta-percha, parksine, leather or other similar elastic or flexible material.	2861	3rd Nov. 1866	Matthew Chamberlain.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes - - -	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
Axle-boxes - - - - - (*Communicated by Joseph Green Cooke.*)	2912	8th Nov. 1866	James Samuel Cooke.
Improved means of forming joints between sashes, doors, drawers and other structures, and the frames in which they move or are fitted.	2959	12th Nov. 1866	John Richard Cadman.
Machinery for the manufacture of india-rubber thread.	2966	13th Nov. 1866	Charles Moseley.
Inkstands - - - - - - (*Communicated by Pierre Labat and Bassot Brothers.*)	3006	16th Nov. 1866	George Davies.
Wheels for carriages and vehicles - - - (*Communicated by Ellis Johnson Morton.*)	3026	19th Nov. 1866	Ellis Wesley Morton.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids - -	3206	5th Dec. 1866	James Barwick. Samuel Tindall.
An improved receptacle for tobacco - -	3229	7th Dec. 1866	William Antil Richards.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - - -	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Inkstands or vessels used for containing and supplying ink - - - - -	3337	19th Dec. 1866	Stephen Perry. Joseph John Perry.
Manufacture of elastic and ribbed fabrics - -	3350	20th Dec. 1866	Samuel Belfield.
Manufacture of elastic gussets - - - -	3451	31st Dec. 1866	James Miller. James Miller Junr.
HAIR-DRESSING AND PERFUMERY.			
Apparatus for brushing the hair of man and animals	79	10th Jan. 1866	Charles Turner.
Shears or scissors - - - - - (*barbers' scissors.*) (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
Hair pins - - - - - -	711	8th March 1866	Adolphus Trotman. John Trotman. Thomas John Cole.
Improvements in hair and other pins, and in cases for containing the same - - - -	867	23rd March 1866	Adolphus Trotman. John Trotman. Thomas John Cole.
Apparatus for rotary brushing and rubbing -	939	2nd April 1866	Charles Turner.
An improved apparatus for containing and dispersing or scattering liquid scents and other liquids. (*Communicated by William Trivet Fox.*)	1412	18th May 1866	Joseph Wesley Fox.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HAIR-DRESSING, &c.—*continued.*			
An improved composition for beautifying the complexion. (*Communicated by Clara Lewenberg.*)	1446	23rd May 1866	Joseph Lewenberg.
Shaving brushes - - - -	1517	31st May 1866	Albert Robert Cunningham.
A new or improved bottle fountain - -	1652	20th June 1866	Jean Nadal.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*perfume cases.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Mode or means of rotating brushes or other articles for which a circular or revolving motion is required.	2661	15th Oct. 1866	Stephen Holness.
Manufacture of hair, nail, tooth and flesh brushes -	3154	30th Nov. 1866	Henry Paul Truefitt.
HAMMERS, AXES, PICKS; SPADES, TROWELS.			
An improved mode of heating water for the supply of boilers and for other purposes. (*by exhaust steam from steam hammers.*)	218	23rd Jan. 1866	Thomas Prideaux.
Machinery for crushing quartz, ores and other substances. (*trip hammers.*) (*Communicated by Abraham Karnes.*)	275	27th Jan. 1866	August Bryant Childs.
An improved hydraulic steam hammer - - (*Communicated by Monsieur Justin Thevenet.*)	312	31st Jan. 1866	Hector Auguste Dufrené.
An improved apparatus for holding and driving cutting and other tools. (*driving hammers for closing rivets.*)	604	27th Feb. 1866	Frederick Morton Eden.
Steam hammers - - - -	668	5th March 1866	William Henry Berry.
Spades, shovels, forks and other similar implements and tools.	761	14th March 1866	John William Yates.
An improved construction of power hammer - (*Communicated by Philip Syng Justice.*)	872	24th March 1866	Alfred Vincent Newton.
Apparatus for treating metals, metallic ores and other mineral substances. (*construction of stamps.*)	1350	11th May 1866	William Prosser.
Machinery for raising and stamping metal -	1405	17th May 1866	Daniel Joseph Fleetwood.
Improvements in the mode of and machinery for making hoes, trowels, and other similar instruments.	1550	5th June 1866	Nathan Brand.
Improvements in shaping and forging metals, and in the machinery or apparatus employed therein.	1903	21st July 1866	Robert Mitchell.
An improved spade or digging implement - - (*Communicated by Marie Naslot.*)	1974	31st July 1866	William Edward Gedge.
Improvements in hammers and in mechanism used therewith - - - -	1986	1st Aug. 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HAMMERS, &c.—*continued.*			
Improvements in machinery or apparatus for stamping, crushing and pulverising ores and other hard substances, which improvements are applicable to power hammers. (*Communicated by William Wright.*)	2024	6th Aug. 1866	John Henry Johnson.
A new or improved direct acting lift or tilt hammer	2070	13th Aug. 1866	Robert Leigh.
Improvements in connecting parts of machinery and structures liable to impulsive forces. (*steam hammers.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
Drifting and rivetting machines - - -	2499	27th Sept. 1866	Theophilus Wood Bunning.
An improved tilt hammer - - - (*Communicated by Philippe Tisserand.*)	2583	8th Oct. 1866	William Edward Gedge.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes - - - - - -	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Improvements in picks or mandrils such as are used for cutting coal and other minerals -	2973	13th Nov. 1866	Freiderich Wilhelm Dähne. David Thomas.
Improvements in hammers and in mechanism used therewith - - - - -	3297	15th Dec. 1866	Samuel Chatwood. John Sturgeon.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*axes and hatchets.*) (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
An improvement in the mode of constructing shovels and spades.	3315	17th Dec. 1866	George Nimmo.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
HARNESS, SADDLES, CURBS, WHIPS, RELEASING FROM HARNESS; SHEARING AND GROOMING HORSES; NOSE BAGS.			
Apparatus for brushing the hair of man and animals	79	10th Jan. 1866	Charles Turner.
Machinery for sewing - - - - (*for harness.*)	132	15th Jan. 1866	Albert Francis Johnson.
Construction of street cabs and harness for the same.	605	27th Feb. 1866	Maurice Cole.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HARNESS, &c.—*continued.*			
Rotary brushes and apparatus for brushing, currying or dressing the skin or hair of animals or hides - - - - -	620	1st March 1866	Samuel Henton. Charles John Henton.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*curbs.*) (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.
Improvements in or applicable to carriages - (*Communicated by Isaac Merritt Singer.*)	1215	30th April 1866	George Davies.
Manufacture of harness and saddlery - -	1249	2nd May 1866	Cedric Nurse.
Improvements in cordage, webbing and similar articles, and in machinery for manufacturing the same. (*saddle girths, reins, &c.*) (*Communicated by James Amiraux Bazin.*)	1318	8th May 1866	George Tomlinson Bousfield.
Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving-bands, and such like articles as require to be strongly united together.	1762	2nd July 1866	Thomas Cook.
An improved spring suspension for horses' nosebags	1818	11th July 1866	François Dégravel.
An improved apparatus for stopping or curbing horses when they run away or become unmanageable.	1847	14th July 1866	George Day.
An improved method of instantly releasing or unharnessing one or more horses from carriages of every description. (*Communicated by Elie Larivière.*)	1873	18th July 1866	William Edward Gedge.
An improved rein clip or holder - - -	1942	26th July 1866	William Toms.
Saddles - - - - - - -	2055	9th Aug. 1866	John Clay.
The elastic tubular india-rubber air chambered pannels. (*for saddles, collars, &c.*)	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Apparatus to feed horses - - - (*nose bags.*) (*Communicated by Annet Amable Faure.*)	2262	3rd Sept. 1866	Henri Adrien Bonneville.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
An improved material or substance to be used instead of whalebone in the manufacture of whips, whip handles, riding and walking sticks and such like articles.	2371	15th Sept. 1866	John Keyston.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HARNESS, &c.—*continued.*			
Machinery or apparatus for cleaning and polishing boots and shoes, harness and other manufactured leather goods.	2429	21st Sept. 1866	Thomas Challinor.
Means and machinery for clipping horses and other animals.	2796	30th Oct. 1866	Patrick Adie.
Fastenings or couplings - - - - (*for harness.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
An improved harness, saddle and tugs - -	3132	28th Nov. 1866	Henry Langsford.
Buckles - - - - - - (*for harness.*)	3239	8th Dec. 1866	Henry Southall.
Improvements in the manufacture of studs or nails for upholstery, harness and other purposes, and in the apparatus employed therein. (*Communicated by Hippolyte Parpaite.*)	3248	10th Dec. 1866	Clinton Edgcumbe Brooman.
An improved safety attachment to carriages - - (*detaching apparatus.*) (*Communicated by Claude Ducrux.*)	3418	29th Dec. 1866	Alfred Vincent Newton.
HATCHING EGGS AND REARING CHICKENS.			
Improvements in incubators or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus.	2567	5th Oct. 1866	Frederick Hills Schröder.
A new or improved artificial incubator - -	3057	21st Nov. 1866	John Brindley.
Incubators and apparatus for rearing young chickens.	3144	29th Nov. 1866	Fortuné La Moile.
HATS, CAPS, BONNETS, LADIES' CAPS, CAP-FRONTS; COVERINGS FOR THE HEAD, HEAD DRESSES, HEAD ORNAMENTS.			
Ventilators and mirrors for hats and other coverings for the head.	2	1st Jan. 1866	Joseph Boonham Croxall.
Manufacture of hats and other coverings for the head.	10	1st Jan. 1866	Montague Montagu.
A new method of and apparatus for washing straw and other plaits and other substances, and for domestic washing purposes - - -	143	16th Jan. 1866	John Samwells. Samuel Nye.
An improved method of making felt hats - -	147	16th Jan. 1866	William Charles Mann.
Improved machinery for pressing and ironing hat bodies. (*Communicated by Nicholas Bunning Hooper.*)	188	20th Jan. 1866	William Edward Newton.
An improved mode of treating fur, wool and hair. (*for hatters.*) (*Communicated by Alfred Clark Brush.*)	264	26th Jan. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HATS, &c.—*continued.*			
Improvements in the manufacture of hats and in apparatus employed therein. (*Communicated by John Thomas Jones.*)	395	8th Feb. 1866	Samuel Bruckshaw Simon.
Manufacture of hats, caps and other coverings for the head.	428	10th Feb. 1866	George Hart.
Machinery for felting the bodies of hats and other coverings for the head.	455	13th Feb. 1866	Joseph Vero.
Machinery or apparatus for cutting lace fabrics to make them into bonnet or cap fronts.	597	27th Feb. 1866	Charles Grey Hill.
Apparatus for ironing and finishing linen and other fabrics. (*finishing hats.*) (*Communicated by James Lyall and William Lyall.*)	765	14th March 1866	William Clark.
An improved machine for pressing straw hats and bonnets.	775	15th March 1866	Monroe Morse.
Dress fastenings and ornaments - - - (*chains for ladies' hats.*)	1131	21st April 1866	John George Taylor.
A new system of application of pads of india-rubber or other elastic materials. (*as helmets, &c.*) (*Communicated by Major General Angelini.*)	1295	7th May 1866	Vitalde Tivoli.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Travelling bags, valises and trunks - - (*with hat box.*) (*Communicated by Zoheth Sherman Durfee.*)	1575	8th June 1866	Charles Denton Abel.
An improvement in the manufacture of hats -	1863	17th July 1866	John Richardson. John Yeomans.
An improved hat stretcher - - -	2173	23rd Aug. 1866	Walter Bayne.
Improvements in felting hats and other felted fabrics, and in apparatus for the same. (*Communicated by Charles Mossant.*)	2194	25th Aug. 1866	William Clark.
Improvements in hats or coverings for the head, parts of which improvements are applicable to parasols and fans. (*Communicated by William Henry White.*)	2299	7th Sept. 1866	John Henry Johnson.
Manufacture of the handles of sad irons and other smoothing and tailors' and hatters' irons.	2313	8th Sept. 1866	John Silvester.
Art of felting or sizing hat bodies and machinery therefor. (*Communicated by Philip Wheeler Somers.*)	2389	17th Sept. 1866	George Tomlinson Bousfield.
Improvements applicable to caps and other coverings for the head, for naval, military and general use.	2584	8th Oct. 1866	Morits Star.
Certain improvements in the manufacture of hats or coverings for the head and in apparatus connected therewith.	2703	19th Oct. 1866	James Haworth.
Manufacture of hats of all kinds - - -	2777	27th Oct. 1866	Bertholde Tueski.
Certain improvements in the ventilation of hats or other coverings for the head.	2787	29th Oct. 1866	James Gee.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HATS, &c.—*continued.*			
Machinery for the manufacture of hats or coverings for the head.	2789	29th Oct. 1866	Joseph Edwin Ward.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*suitable for making hats.*) (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*hat trimmings.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Certain improvements in the manufacture of hats or coverings for the head and in apparatus connected therewith - - - -	3193	5th Dec. 1866	Thomas Bayley. John Taylor.
Manufacture of "Gossamer" hat bodies - -	3353	20th Dec. 1866	Samuel Hall.
HEATING AND EVAPORATING; REGULATING HEAT.			
An improved apparatus for warming feet - -	41	5th Jan. 1866	John Francis Wheeler.
Apparatus for regulating temperature, for recording temperature, and for actuating timekeepers.	76	10th Jan. 1866	Robert Shaw.
Means or apparatus employed in the combustion of gas in gas stoves and burners employed in heating and cooking.	110	13th Jan. 1866	John Calvin Thompson.
Steam-engine boilers - - - - - (*heating by gas.*)	177	19th Jan. 1866	Richard Clark.
Feed water heaters for locomotives - -	197	22nd Jan. 1866	Samuel Finton Allen.
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*obtaining heat.*)	200	22nd Jan. 1866	Charles Gregory Penney.
An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass - - - - - -	208	22nd Jan. 1866	Pynson Wilmot Bennitt. Joseph Matthews.
An improved generator for steam-engines - - (*heating feed water.*) (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
An improved mode of heating water for the supply of boilers and for other purposes.	218	23rd Jan. 1866	Thomas Prideaux.
Construction of steam-boilers - - -	226	23rd Jan. 1866	James Howard. Edward Tenney Bousfield.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*applicable to heating.*)	265	26th Jan. 1866	Henry Sherwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Manufacture of salt - - - - (*using waste heat from furnaces.*)	290	30th Jan. 1866	William Lycett.
Obtaining motive-power either giving or not giving light. (*to superheat steam, heat carriages, &c.*) (*Communicated by Edouard Patan.*)	291	30th Jan. 1866	John Garrett Tongue.
Apparatus for heating conservatories, apartments or boilers, by means of gas.	346	3rd Feb. 1866	Theophilus Alfred Gilbert Willington.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware - - - -	399	9th Feb. 1866	Edward Bevan. Abel Fleming.
Apparatus for heating pipes by hot water - -	429	10th Feb. 1866	George William Cumming. John Kemp Edmonds.
Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (*Communicated by Guillaume Lemaire Malherbe.*)	444	13th Feb. 1866	Montague Richard Leverson.
Improvements in obtaining and applying artificial heat for producing light and for other purposes, and in the apparatus employed therein -	447	13th Feb. 1866	Samuel Marland. William Horatio Smith. William Wells.
Heating apparatus used for melting glue and for heating wood and irons.	459	13th Feb. 1866	William Cotter.
An improved mode of and apparatus for generating superheated steam. (*Communicated by Ebenezer Danford.*)	486	15th Feb. 1866	Alfred Vincent Newton.
Economizing the heat of gas producers - -	497	16th Feb. 1866	William Clay.
Apparatus for heating the feed water for steam-boilers.	503	16th Feb. 1866	James Heywood Whitehead.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein.	513	17th Feb. 1866	Joshua Kidd.
Improvements in the manufacture of peat fuel and in the machinery employed therein.	545	22nd Feb. 1866	John Dickinson Brunton.
Improved means or apparatus for drying steam, also for heating the feed water of stationary boilers - - - - -	650	3rd March 1866	Joseph Pollit. Eustace Wigzell.
An improved superheater for a certain class of steam-boilers known as "flash firers."	661	5th March 1866	James Stocks.
Improvements in the manufacture of zinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes.	671	5th March 1866	Charles William Siemens.
Improvements in superheating steam and in apparatus connected therewith.	682	6th March 1866	Archibald Campbell Campbell.
An improved mode of and apparatus for working air-engines. (*heating air.*) (*Communicated by John Bowman Atwater.*)	684	6th March 1866	Alfred Vincent Newton.
Improvements in generating heat, and in applying it for the production of motive-power and steam, also in apparatus employed therein.	738	10th March 1866	Matthew Piers Watt Boulton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*keeping the moulds warm.*)	740	10th March 1866	Philip Henry Ashberry.
Improvements in the means and apparatus employed for evaporating and cooling liquids applicable to various purposes.	747	12th March 1866	George Severn.
Apparatus for ironing and finishing linen and other fabrics. (*heating the cylinder.*) (*Communicated by James Lyall and William Lyall.*)	765	14th March 1866	William Clark.
Steam-boilers and feed-heating and other apparatus connected therewith.	794	17th March 1866	John Shanks.
Mode of and apparatus for diffusing moisture and heat through vegetable or other matters -	811	19th March 1866	Edward Field. Francis Lloyd.
Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith -	812	19th March 1866	Thomas Routledge. Thomas Richardson. William Henry Richardson.
Process of and apparatus for distilling petroleum and other mineral oils. (*Communicated by Edward Braggins Matthew Patrick Ewing and Hiram Bond Everest.*)	827	20th March 1866	William Edward Newton.
An improved mode of treating waste liquors for the dissipating or utilizing of the same - (*evaporating.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
Machinery or apparatus for cleaning and preparing fibrous substances, and for opening twisted yarns and woven fabrics.	869	24th March 1866	Francis Alton Calvert.
Improved cooking apparatus - - -	894	27th March 1866	Frederic Pelham Warren.
Construction of coke ovens - - - - (*and utilising the heat.*)	919	29th March 1866	Charles Pardoe.
Apparatus for heating houses and apartments - (*Communicated by David Greene Haskins.*)	1003	7th April 1866	George Davies.
Collecting the heated gases from blast furnaces so as to utilise the same - - - - -	1023	10th April 1866	James Sparrow. Samuel Poole.
Engines for obtaining motive-power - -	1047	13th April 1866	Samuel Chatwood. John Sturgeon.
Apparatus for evaporating or recovering lees -	1049	13th April 1866	Alexander Swan.
Apparatus for heating the water supplied to locomotive and other multitubular steam-boilers.	1090	18th April 1866	James Marshall.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
Thermo-electric batteries - - - - -	1135	21st April 1866	Lieutenant-Colonel James Baker.
Hot-blast stoves or apparatus for heating blast for smelting iron.	1137	21st April 1866	John Player.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Manufacture of gas - - - - (*for heating.*)	1156	24th April 1866	George Fitzjames Russell. William Henry Carbines.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Improvements in the method of heating the boilers of locomotive and other steam-engines, and in the apparatus employed for such purpose. (*Communicated by David Greene Haskins.*)	1240	2nd May 1866	George Davies.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom - - - - -	1320	8th May 1866	James Lee Norton. Alfred Giles.
Manufacture of non-conducting substances for impeding the passage of heat. (*covering for heaters.*)	1327	9th May 1866	John Allcock Jones.
Construction of steam-boilers - - -	1375	14th May 1866	Thomas Holt.
Certain improvements in generating and heating steam, gas and vapours, and in the machinery or apparatus employed therefor.	1410	18th May 1866	Julian Bernard.
Marine steam-engines and surface condensers - (*feed water heater.*)	1433	21st May 1866	Alexander Crichton.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein - - -	1450	23rd May 1866	John Longbottom. James Eastwood.
Steam and other boilers - - - - (*for heating water.*)	1457	24th May 1866	Thomas Green.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same - - - - (*superheating steam.*)	1462	25th May 1866	William Gibson. Edward Ellis.
Improved means of and apparatus for warming and keeping warm articles of food, particularly infants' food - - - -	1467	25th May 1866	Edward Bevan. Abel Fleming.
Manufacture of gas - - - - (*heating the furnace.*)	1468	25th May 1866	Ernst Büchner.
Ovens for baking bread and other aliments - (*Communicated by Charles Nicolas Athanase Lesobre.*)	1472	26th May 1866	Henri Adrien Bonneville.
Kilns or apparatus for generating heat - -	1563	6th June 1866	Peter Righetti.
Improvements in means or apparatus for heating the feed water of steam-boilers, and for maintaining free circulation between the upper and lower parts of the water in boilers.	1589	11th June 1866	Albert Thornton.
Improvements in apparatus for preventing "priming," and for the discharge of condensed steam from steam pipes, and for regulating the pressure of steam in steam pipes.	1591	11th June 1866	James Seward.
Mode of and apparatus for heating bakers' ovens -	1608	13th June 1866	John Lunt.
Improvements in the manufacture of sugar and in the apparatus employed therein.	1623	14th June 1866	Walter Knaggs.
A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. (*Communicated by Simon Stevens.*)	1628	15th June 1866	Benjamin Franklin Stevens.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Apparatus for generating steam or heating liquids -	1694	25th June 1866	Edward Field. Francis Wise.
Thermo-electric magnetic batteries and engines -	1718	27th June 1866	Lieutenant-Colonel James Baker.
Improvements in smelting iron ores, and in apparatus used with blast furnaces. (*heating blast.*)	1734	29th June 1866	Henry Hobson.
Apparatus for applying heat to certain parts of the human body. (*Communicated by Emile Duroux.*)	1753	2nd July 1866	Henri Adrien Bonneville.
Mode of and apparatus for generating gas for lighting, heating and other purposes. (*Communicated by Jaroslav Zadora Paszkowski and Olgerd Sabinski.*)	1888	20th July 1866	Marc Antoine François Mennons.
Lamps and other lighting and heating apparatus fed by mineral or other volatile liquids.	1907	23rd July 1866	Alexandre Magnin.
Producing and super-heating steam - - (*Communicated by James Farquharson M'Kenzie.*)	1913	23rd July 1866	George Tomlinson Bousfield.
Treating iron for the purpose of converting it into steel or hard metal, and for plating or coating and hardening and tempering iron and steel. (*Communicated by Elliot Savage.*)	1938	25th July 1866	William Edward Newton.
Hot blast for smelting and other furnaces -	1962	30th July 1866	Jonathan Pickering.
A smoke consuming heater - - - -	2002	2nd Aug. 1866	George Washington Fair.
Improvements in the combustion and prevention of smoke, and in increasing the heating power of fuel.	2072	13th Aug. 1866	Désiré Marchal.
An improved heating apparatus - - - (*Communicated by Sidney Smith.*)	2105	16th Aug. 1866	William Robert Lake.
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces,	2259	3rd Sept. 1866	David Caddick.
Ovens for baking - - - - -	2291	6th Sept. 1866	George Pimm.
Steam generators or boilers, water-heaters and apparatus connected therewith.	2378	15th Sept. 1866	Joseph Twibill.
Improved apparatus for heating or warming buildings.	2396	18th Sept. 1866	Henry Justinian Newcome.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes. (*superheating steam.*)	2415	20th Sept. 1866	Aristide Balthazard Bérard.
Improvements in brewing, malting, distilling and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.
Improvements in the construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hot houses and drying houses - - - -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Improvements applicable to boiling, steaming and cooking apparatus. (*or heating water for buildings.*)	2560	4th Oct. 1866	George Underwood.
Improvements in incubators or apparatus for hatching eggs, and in other heating apparatus, and in cooking and drying apparatus.	2567	5th Oct. 1866	Frederick Hill Schröder.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Improvements in the melting and casting of steel, and in the apparatus employed therein - -	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture - - - -	2614	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in heating baths and in apparatus for the same.	2618	10th Oct. 1866	Lewis Wilson.
Improvements in heating and warming rooms and other buildings, and in apparatus for the same. (*Communicated by Louis Marie Anez.*)	2647	12th Oct. 1866	William Clark.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
Improvements in and in apparatus for evaporating or recovering lees.	2671	16th Oct. 1866	Alexander Swan.
Process of distilling petroleum and other oils or substances. (*Communicated by Orazio Lugo and Theodore Otto Ludwig Schrader.*)	2685	17th Oct. 1866	Alfred Vincent Newton.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof, and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
An improved portable chamber or receptacle for containing articles, whereby the same are caused to retain their heat.	2722	22nd Oct. 1866	Tempest Booth.
Machines for making paper - - - (*Communicated by Richard Smith and Oliver Ellsworth.*)	2728	23rd Oct. 1866	John Henry Johnson.
Certain improvements in the construction of metallic pipes or tubes to be employed for the purposes of heating buildings, and for extinguishing fire therein.	2734	23rd Oct. 1866	Robert Hollingdrake.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*using heated air for evaporating.*)	2744	24th Oct. 1866	Joseph Watts.
Apparatus for lighting and heating - - - (*Communicated by Jean Baptiste Marie Amédée Bourreiff.*)	2755	25th Oct. 1866	Clinton Edgcumbe Brooman.
Manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (*Communicated by William Elmer, M.D.*)	2759	25th Oct. 1866	George Tomlinson Bousfield.
Improvements in heating applicable to steam-boilers' furnaces and other heating apparatus.	2848	3rd Nov. 1866	Francis Alton Calvert.
Improvements in finishing woven fabrics and in the machinery to be employed therefor. (*heating air.*)	2896	7th Nov. 1866	John Erksine Brown.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Apparatus for regulating and controlling the pressure and flow of fluids.	3048	20th Nov. 1866	John Robertson.
Certain improvements in apparatus for economizing fuel by retaining and applying heat to the heating of water.	3081	23rd Nov. 1866	John Robinson.
Certain improvements in apparatus for economizing fuel by retaining and applying heat to the heating of water in locomotive boilers.	3082	23rd Nov. 1866	John Robinson.
An improved apparatus for evaporating the juices of various substances. (*Communicated by Jean Louis Lompret-Dumont.*)	3104	26th Nov. 1866	William Edward Gedge.
Improved means and machinery for the manufacture of earthenware and other articles made from plastic materials - - - - - (*heating the metal die.*)	3120	27th Nov. 1866	John Henry Atterbury. Sydney Woolf.
An improved lighting, heating and cooking apparatus.	3156	1st Dec. 1866	James Webster.
Improvements in the methods of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and using such apparatus for that and other purposes. (*heating or warming.*)	3165	1st Dec. 1866	Samuel John Browning.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam.	3179	3rd Dec. 1866	John Ambrose Coffey.
An improved process and furnace or apparatus for the manufacture of steel, or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.
Improvements in steam-boilers and in applying heat thereto - - - - - -	3279	13th Dec. 1866	Henry William Ripley. Thomas Barker.
Carburetters - - - - - - - (*for generating heat.*) (*Communicated by Francis Stebbins Pease.*)	3308	15th Dec. 1866	William Clark.
Certain improvements in the preparation of size and in apparatus connected therewith.	3311	17th Dec. 1866	Henry Hall.
Improvements in means or apparatus for lighting fires, which improvements are also applicable to warming apartments and for other heating purposes.	3347	20th Dec. 1866	Whitmore Baker.
Thermo-electric and magnetic apparatus - -	3351	20th Dec. 1866	Lieut^{t} Colonel James Baker.
Apparatus connected with steam-boilers for regulating the evaporating power thereof, and to obtain greater safety in their use - -	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
Improvements in or applicable to marine, locomotive, stationary and other steam-boilers. (*economising heat.*)	3407	28th Dec. 1866	Edward Storey.
Improvements in the manufacture of coke and charcoal, and in the ovens employed therein.	3419	29th Dec. 1866	Humphrey Chamberlain.
An improved apparatus for heating apartments, conservatories and baths.	3438	31st Dec. 1866	George Shrewsbury.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HEATING, &c.—*continued.*			
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting, heating, and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes. (*heating water.*)	3453	31st Dec. 1866	Frederic Pelham Warren.
See also "FIRE-PLACES."			
„ "FURNACES."			
HOISTS, CRANES, CAPSTANS, WINDLASSES; RAISING, LOWERING AND MOVING HEAVY BODIES; RAISING FROM MINES; RAISING SUNKEN SHIPS.			
Machinery and apparatus for charging blast and other furnaces. (*elevating loaded waggons.*)	6	1st Jan. 1866	William Barningham.
Improved means or apparatus for lifting and lowering weights - - - - -	73	2nd Jan. 1866	Thomas Constantine Fawcett. Henry Wilson.
Windlasses - - - - - - -	42	5th Jan. 1866	Edmund Walker.
Improvements applicable to the hoisting or lifting tackle for recovering sunken whales or other submerged bodies.	54	8th Jan. 1866	Thomas Welcome Roys.
Machinery or apparatus for the construction or making of moulds for casting in metals. (*lifting mould boxes.*)	56	8th Jan. 1866	Archibald Gibb.
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - -	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Travel'ing cranes - - - - -	211	22nd Jan. 1866	Benjamin Walker. John Frederick Augustus Pflaum.
Apparatus for lowering boats, part of which apparatus is applicable to other uses - - - -	259	26th Jan. 1866	Edward Ambrose. William Braddon.
Machinery for cutting, excavating, sinking, dredging and cleaning water courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*raising materials.*)	286	29th Jan. 1866	James Robertson.
Travellers for warehouses, factories, building yards and other purposes.	411	9th Feb. 1866	William Nathaniel Wynn.
Improved mechanism for working apparatus for hoisting and pressing. (*Communicated by Dennis Frisbee.*)	476	15th Feb. 1866	Edward Thomas Hughes.
Crabs or winches - - - - - -	531	21st Feb. 1866	Arthur Henry Robinson.
Machinery or apparatus applicable as a fire-escape, scaffold, lift or other such like useful purpose.	584	24th Feb. 1866	William Henry Prior.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HOISTS, &c.—*continued.*			
Chains and apparatus used for submarine purposes. (*for raising sunken ships.*)	632	1st March 1866	William Beare Caulfield.
Dredging and elevating machinery - -	704	8th March 1866	Sylvester Franklin Schoonmaker.
Construction and arrangement of springs - - (*for cranes.*)	763	14th March 1866	Julien François Belleville.
An improved ratchet-brace, the improvements contained therein being applicable also to lifting-jacks.	817	20th March 1866	William Dicks.
Pillar cranes - - - - -	825	20th March 1866	Percy Graham Buchanan Westmacott.
Improvements in pulleys gearing with chains, and in differential pulley blocks.	841	21st March 1866	Henry William Ley.
Apparatus for raising and lowering heavy bodies -	849	22nd March 1866	Robert Anthony Hardcastle.
Hoisting apparatus - - - - (*Communicated by Samuel Munson Longley and Andrew Conkey Getty.*)	874	24th March 1866	Alfred Vincent Newton.
Improvements in recovering sunken ships or vessels, and in the apparatus relating thereto. (*Communicated by Ernest Bazin.*)	910	29th March 1866	Henri Adrien Bonneville.
Improvements in docks and apparatus connected therewith, parts of which are applicable to floating structures. (*or for raising ships.*)	1008	9th April 1866	John Macintosh.
Improvements in machinery or apparatus for shaking, riddling, raising and delivering straw, hay, corn, and other like agricultural produce, and in the mode of driving or transmitting motion thereto, parts of which improvements are applicable to the driving or transmitting of motion to other machinery - -	1072	16th April 1866	James Hayes the elder. Josiah Hayes. James Hayes the younger.
Apparatus or machinery for raising and lowering revolving shutters.	1170	26th April 1866	Thomas Kirby.
Apparatus used when lowering and releasing ships' boats.	1247	2nd May 1866	Carl Henrik Ramsten.
Improvements in raising and lowering ships' boats and other weights, and in the apparatus used therefor.	1347	10th May 1866	Thomas Thornton.
Scoops and elevators for excavating - - (*Communicated by Augustus Theodore Morris.*)	1488	28th May 1866	William Clark.
Apparatus for raising and lowering weights -	1562	6th June 1866	John Loader.
Improvements in waggons or carts for carrying hay or other agricultural produce, in order to facilitate the stacking of such produce.	1604	13th June 1866	Frederick Cambridge.
Hoists - - - - - -	1618	14th June 1866	William Bellhouse.
Apparatus for raising weights - - -	1672	22nd June 1866	William Eades. William Thomas Eades.
Machinery for turning, shaping and cutting metal - (*applying a crane.*)	1677	23rd June 1866	Thomas Dunn.
Steam travelling cranes - - - -	1842	13th July 1866	Robert Roger.
An improved lift, hoist or mechanical elevator adapted for hotels, warehouses, railway stations and other places, and intended to facilitate and render easy the ascent of persons and goods.	1845	13th July 1866	Peter Ellis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HOISTS, &c.—*continued.*			
Apparatus for lowering and raising window-blinds, curtains, maps and the like - - - -	1944	26th July 1866	John William Hoffman. George Rowe Wilson.
Apparatus for holding and releasing cords, chains, ropes and bands - - - - -	1979	1st Aug. 1866	Walter Beaumont. William M'Master.
Lifting jacks - - - - - - (*Communicated by Augustus Bryant Childs.*)	2233	30th Aug. 1866	Samuel Bruckshaw Simon.
An improved crank for single or double purchase crabs or winches.	2234	30th Aug. 1866	Denis Calnon.
Improvements in working cords, straps or chains with pulleys, also in differential pulley blocks, and in apparatus for pawling or retaining.	2398	18th Sept. 1866	Henry William Ley.
Apparatus for elevating or conveying yarns or similar materials.	2465	25th Sept. 1866	Alexander Steven.
Apparatus for raising and stacking straw and other agricultural produce - - - - -	2505	28th Sept. 1866	Matthew Ridley. William Pawson. Charles Basker.
Apparatus for lifting or assisting to lift, and for securing window sashes, shutters and other like frames and weights.	2511	28th Sept. 1866	Strother Price.
Improvements in raising vessels and in the machinery or apparatus employed therefor.	2547	3rd Oct. 1866	William Dundas Scott.
Hoisting apparatus and cars for mining purposes - (*Communicated by George Williams.*)	2578	6th Oct. 1866	William Clark.
Machinery for lifting or pitching cut crops - -	2727	22nd Oct. 1866	Spencer Peddar.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes.	2816	31st Oct. 1866	John Scott.
Apparatus for lowering and "letting go" ships' anchors.	2830	1st Nov. 1866	James Jackson.
Apparatus for transmitting and controlling motion (*in windlasses, &c.*)	2867	5th Nov. 1866	Robert Anthony Hardcastle.
Friction breaks and apparatus for giving motion to machinery. (*for windlasses, &c.*)	2881	6th Nov. 1866	Robert David Napier.
Machinery for submarine excavations - - (*Communicated by Claudius Edward Habicht.*)	3025	17th Nov. 1866	William Edward Newton.
Improvements in apparatus for drying hay and other cut crops, also in apparatus for raising or elevating the same.	3036	19th Nov. 1866	William Alfred Gibbs.
Machinery or apparatus for raising and lowering heavy bodies.	3046	20th Nov. 1866	Robert Anthony Hardcastle.
Raising sunken vessels - - - - - (*Communicated by Samuel William Maquay.*)	3067	22nd Nov. 1866	Thomas McComas.
Machinery or apparatus for raising, lowering, moving or transporting heavy bodies. (*Communicated by Charles le Blanc.*)	3071	22nd Nov. 1866	John Henry Johnson.
Improvements in apparatus for elevating straw and other produce, also applicable to other purposes where gearing is required.	3084	23rd Nov. 1866	John Coulson.
An improved mode of and apparatus for raising and lowering persons, goods or articles in dwelling houses and other buildings.	3088	23rd Nov. 1866	Frederick Robert Augustus Glover.
Apparatus for raising and lowering the heads of carriages.	3100	24th Nov. 1866	William Botwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HOISTS, &c.—*continued.*			
Improvements in chain cable holders applicable for capstans and windlasses, and in apparatus for driving capstans.	3178	3rd Dec. 1866	William Horatio Harfield.
Construction of ships' capstans - - -	3240	8th Dec. 1866	William Henry Biggleston.
Construction of pulleys and lifting gear for raising and lowering weights.	3286	14th Dec. 1866	Thomas Andrew.
An improved construction of elevator - - (*Communicated by Reuben Martin Van Sickler.*)	3314	17th Dec. 1866	Alfred Vincent Newton.
HORSE-SHOES, SHOEING HORSES.			
Improved portable appliances for horses' feet in frosty weather, to supersede the necessity for what is termed "roughing" the shoes.	125	15th Jan. 1866	James Harris.
Improvements in the manufacture of horse nails and in apparatus employed therein.	426	10th Feb. 1866	John Huggett.
Improvements in the manufacture of horse shoes and in the apparatus employed therein.	902	27th March 1866	Joseph Gamgee.
Shoes and other appliances for the protection of the feet and ankles of horses and other animals. (*Communicated by Albert Sayles Wilkinson.*)	1360	11th May 1866	William Clark.
Construction of horse shoes - - -	1547	4th June 1866	John Sainty.
Manufacturing by the aid of a special arrangement of cylinders or rollers, a novel sort of bar or rod iron suitable for making horse shoe nails. (*Communicated by Joseph Jules Falatieu.*)	1780	5th July 1866	William Edward Gedge.
A new and useful invention having reference to the manufacture of horse-shoes or various other articles.	1999	2nd Aug. 1866	Hazen Jay Batchelder.
An improved horse shoe - - - - (*Communicated by Charles Jean Baptiste Peillard.*)	2080	14th Aug. 1866	William Edward Gedge.
Improvements in nails and in machinery for manufacturing the same. (*for horse shoes.*) (*Communicated by Arlon Man Polsey.*)	3328	18th Dec. 1866	William Robert Lake.
HORTICULTURE, CONSERVATORIES, LAWN MOWING, TRAINING PLANTS.			
Apparatus for regulating temperature, for recording temperature and for actuating time-keepers. (*for hothouses.*)	76	10th Jan. 1866	Robert Shaw.
Shears or scissors - - - - - (*pruning shears.*) (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
A new or improved force pump or garden engine -	198	22nd Jan. 1866	Charles Wyatt Orford.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HORTICULTURE, &c.—*continued.*			
Apparatus for heating conservatories, apartments or boilers, by means of gas.	346	3rd Feb. 1866	Theophilus Alfred Gilbert Willington.
Apparatus for heating pipes by hot water - - (*for hothouses.*)	429	10th Feb. 1866	George William Cumming. John Kemp Edmonds.
New or improved mechanism for obtaining motive-power, particularly applicable for the self winding of clocks, time-pieces and other machinery requiring winding. (*raising greenhouse windows.*)	752	13th March 1866	Fredrich Gustav Adolph Horstmann.
Construction of the roofs of horticultural and other buildings and structures.	962	4th April 1866	William Howitt.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
An improved portable irrigator for watering gardens and other purposes.	1145	23rd April 1866	Josiah Pumphrey.
Fountains - - - - (*for gardens.*)	1193	27th April 1866	John William Hoffman.
A new method of hoeing, raking and rolling gravel walks, and in apparatus therefor.	1371	14th May 1866	John Webster.
Improvements in greenhouses and specially relating to the fixings, fittings, ventilation and shading of the same.	1399	17th May 1866	Thomas Hungate Preston Dennis.
Steam and other boilers - - - - (*heating water for greenhouses.*)	1457	24th May 1866	Thomas Green.
An improved mode of connecting metallic wires - (*supports for plants.*) (*Communicated by Nathan Block.*)	1503	29th May 1866	William Edward Newton.
Apparatus to be used in training or growing hops -	1551	5th June 1866	Edwin Farmar.
Horticultural glass houses - - - -	1580	8th June 1866	James Cranston.
Improvements in the mode of applying covers or awnings to garden and other similar seats, which improvements are also applicable to awnings or covers for other purposes. (*Communicated by Adolphe Laumeau.*)	2042	8th Aug. 1866	Eugène Henri Desiré Ingé.
A new or improved method of protecting labels from injury. (*labels for plants.*)	2106	16th Aug. 1866	William Colville Gibson.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, time-pieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
Improvements in the construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses - - -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes - - (*for horticulture.*)	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
Grass or lawn mowing machines - - -	3107	26th Nov. 1866	James Edward Boyd.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
HORTICULTURE, &c.—*continued.*			
New or improved means for the prevention of rot in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (*defending from lightning.*) (*Communicated by John Francis Bennett.*)	3403	28th Dec. 1866	Charles Denton Abel.
An improved apparatus for heating apartments, conservatories and baths.	3438	31st Dec. 1866	George Shrewsbury.
INKS AND INKSTANDS.			
Manufacture of printing ink - - -	367	6th Feb. 1866	Samuel Holmes.
Manufacture of printing ink - - - -	1737	29th June 1866	Samuel Holmes.
Inkstands - - - - - - (*Communicated by Pierre Labat and Bassot Brothers.*)	3006	16th Nov. 1866	George Davies.
Inkstands or vessels used for containing and supplying ink - - - - - -	3337	19th Dec. 1866	Stephen Perry. Joseph John Perry.
INLAYING; INLAID-WORK.			
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*imitating inlaid work.*)	740	10th March 1866	Philip Henry Ashberry.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles -	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.
Manufacture of lettered, numbered and figured tablets, door and name plates, labels and signs, show plates and other similar articles. (*applying inlaid work.*)	3160	1st Dec. 1866	George Mansell.
INSECTS AND VERMIN (*destroying*). **PROTECTING SILK-WORMS.**			
An improved trap for destroying flies and other insects.	1223	1st May 1866	Joseph Victor Delestre.
An improved composition for destroying vermin on sheep and other animals, and for preserving them therefrom.	1274	4th May 1866	John Graham Hope.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
INSECTS, &c.—*continued.*			
An improved vermin trap - - - -	1632	16th June 1866	George Ratford Wilson.
New or improved means for the prevention of rot in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (*protecting silk worms from lightning.*) (*Communicated by John Francis Bennett.*)	3403	28th Dec. 1866	Charles Denton Abel.
JEWELLERY, LOCKETS, BROOCHES, BRACELETS, WATCH CHAINS, SWIVELS AND KEYS.			
Protectors for watches, portemonnaies and pocket books.	123	13th Jan. 1866	Henry Gottheimer.
An improved holder or fastener for shirt studs, brooches and other personal ornaments.	153	17th Jan. 1866	Matthew Allies.
Production of ornamental surfaces for jewellery and other purposes.	505	17th Feb. 1866	Walter Bentley Woodbury.
Means and apparatus for producing and applying galvanic currents. (*to brooches, lockets, &c.*)	582	24th Feb. 1866	Isac Louis Pulvermacher.
Improvements in keys for watches and clocks, parts of which improvements are applicable to the keys of ordinary locks.	637	2nd March 1866	James Carpenter.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*crowns, flowers, &c.*) (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.
Improvements in bracelets and in fastenings for bracelets.	762	14th March 1866	Martin Löwenstein.
Guards for pocket books, watches and watch keys -	1128	21st April 1866	John Macintosh. William Boggett.
Stamping on flatted or unflatted metals - - (*on jewellery.*)	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Improvements in ear-rings, which improvements may also be applied to the fastening of watch hooks and other articles of jewellery.	2554	4th Oct. 1866	George Elliott Searle.
Manufacture of ornaments for the wrist - -	2569	5th Oct. 1866	James Badcock.
Manufacture of articles commonly called "writing" or "library sets" and other similar articles - (*caskets.*)	2592	8th Oct. 1866	George Betjemann. George William Betjemann. John Betjemann.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
JEWELLERY, &c.—*continued.*			
Manufacture of certain parts of brooches and other similar dress fastenings and ornaments.	2731	23rd Oct. 1866	John Richards.
Improvements in lockets, which improvements may also be applied to brooches, bracelets and other articles of jewellery and dress.	2786	27th Oct. 1866	Francesco Tubino.
Fastenings or couplings - - - (*for necklets, chains and bracelets.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Lockets, brooches and other articles of jewellery -	2951	12th Nov. 1866	George Perry.
Certain improvements in the construction of articles of jewellery - - - -	2992	15th Nov. 1866	Thomas Vaughton. Oliver Vaughton.
JOINING, JOINTING, COUPLING; PIPE JOINTS, RAILWAY JOINTS, FURNITURE JOINTS AND HINGES; PACKING FOR JOINTS.			
Cement for making good the joints in oil stills and retorts, and joints exposed to medium or high temperatures - - - -	23	3rd Jan. 1866	George Starbuck. John Carrington Sellars.
Certain movable parts of stationary and marine engines. (*joints.*)	44	5th Jan. 1866	William Winter.
Improvements in the construction of steam-boilers, which improvements are also applicable to the construction of other vessels of a like character -	148	16th Jan. 1866	Richard Cherry. Edwin Crossley. William Bower.
Machinery and apparatus employed in casting metal tubes and other articles.	172	19th Jan. 1866	William Sumner.
Construction of steam-boilers - - -	226	23rd Jan. 1866	James Howard. Edward Tenney Bousfield.
An improved means of splicing or joining straps or driving belts for machinery.	249	25th Jan. 1866	George Dyson.
Springs for ladies' skirts and similar purposes - (*Communicated by Jules Libert.*).	334	2nd Feb. 1866	John Henry Johnson.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*spring couplings.*)	369	7th Feb. 1866	Uriah Scott.
Machinery for laying veneers on to surfaces - -	419	10th Feb. 1866	Henry Charles Clifton.
Combining together surfaces of wood - -	451	13th Feb. 1866	Samuel Drake.
Trusses - - - - - -	522	20th Feb. 1866	George Hill. David Hill.
Pumps - - - - - - - (*Communicated by Asher Burr.*)	719	9th March 1866	Edward Thomas Hughes.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*hinge movement of the press.*)	740	10th March 1866	Philip Henry Ashberry.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
JOINING, &c.—*continued.*			
Construction of safes - - - - (*grooved joint for doors.*)	792	17th March 1866	Thomas Sagar. George Keighley.
Apparatus for raising and lowering heavy bodies -	849	22nd March 1866	Robert Anthony Hardcastle.
Watch and chronometer cases - - -	881	24th March 1866	Thomas Adams.
Certain improvements in the manufacture of iron safes and other strong boxes.	911	29th March 1866	Reuben Noake.
Construction of bridges, arches and roofs - -	913	29th March 1866	Edward Kochs. Theodor Reuter. Olaus Henrici Ph. D.
Couplings of railway carriages, trucks or vans -	971	5th April 1866	Richard Douglass Morgan.
Improvements in the hoops of ladies' skirts, and in the covering of steel springs for the same and analogous uses.	1015	9th April 1866	Sylvester Judson Sherman.
Manufacture of articles made of plates, sheets or bars of wrought iron or of steel.	1106	19th April 1866	Daniel Evans.
Joints or connections for pipes - - - (*Communicated by Anton Richter and Romuald Bozek.*)	1157	24th April 1866	Charles Denton Abel.
Improvements in or applicable to carriages - (*coupling for axletrees.*) (*Communicated by Isaac Merritt Singer.*)	1215	30th April 1866	George Davies.
Mills for grinding wheat and other grain - -	1238	2nd May 1866	James Morris.
Improvements in joining pipes and tubes, and in the packing to be employed for that purpose.	1351	11th May 1866	William Austin.
Connecting knobs or handles and their spindles to locks and latches.	1352	11th May 1866	John Matthias Hart.
Fittings applicable to ships' decks to make tight joints around masts and other projections. (*Partly communicated by Andrew Gove.*)	1372	14th May 1866	William Gerard.
Breech-loading fire-arms - - - (*Communicated by John Burke.*)	1396	16th May 1866	William Edward Newton.
Cocks or taps for the attachment of pipes, with soldered or plumbers' joints.	1419	19th May 1866	Henry Wilson.
An improved mode of connecting metallic wires - (*Communicated by Nathan Block.*)	1503	29th May 1866	William Edward Newton.
Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*cement for joints.*)	1568	7th June 1866	John Carrington Sellars.
Safes or receptacles for valuable property - -	1587	11th June 1866	John Baxter. John Hunt.
Manufacture of certain fittings for gas, steam and water tubes. (*joints.*)	1636	16th June 1866	George Henri Marc Muntz.
A new or improved coupling for railway carriages, trucks and waggons. (*Communicated by Alexander Robert Terry.*)	1686	25th June 1866	Edward Griffith Brewer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
JOINING, &c.—*continued.*			
Manufacture of metal boxes, tins or cases - (*Communicated by Childéric Allain and Jules Trottier.*)	1722	28th June 1866	William Edward Gedge.
Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving bands and such like articles as require to be strongly united together.	1762	2nd July 1866	Thomas Cook.
Machinery for making the fittings for gas, steam and water pipes.	1776	4th July 1866	John Brotherton.
Construction of connecting links or hooks - (*Communicated by Robert Creuzbaur.*)	1785	5th July 1866	Alfred Vincent Newton.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses.	1803	9th July 1866	William Baines.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material - - - - -	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
Improvements in shaping and forging metals, and in the machinery or apparatus employed. (*pipe couplings.*)	1903	21st July 1866	Robert Mitchell.
Permanent way of railways - - - -	1951	27th July 1866	William Seaton.
Machinery and apparatus for the manufacture of boots and shoes and other coverings for the feet	1964	30th July 1866	Thomas Greenwood. William Keats.
Machinery for cutting dove-tail joints - - (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
Improvements in the permanent way of railways and in screw bolts for the same, which latter are also applicable to other purposes. (*fish plates.*)	2019	6th Aug. 1866	Perceval Moses Parsons.
Couplings or connections particularly adapted for coupling or connecting gas, water and other pipes - - - - - -	2023	6th Aug 1866	Ralph Medcalf. William Nicholls.
Processes of jointing and connecting together armour plates used for covering and defending ships, ships' turrets, or batteries on land, against the effect of shot.	2038	8th Aug. 1866	Sir John Benson Knight.
Packing for steam, water, air and gas tight joints -	2064	11th Aug. 1866	John Edwin Keirby.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients. (*diagonal coupling rods.*)	2174	24th Aug. 1866	John Barraclough Fell.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums or rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Improvements in railway breaks, parts of which improvements are applicable as shaft couplings. (*Communicated by Victor Amedée Gellée.*)	2219	28th Aug. 1866	John Henry Johnson.
An improved carriage axle for common roads, also the clip for uniting the spring or springs to the same - - - - - -	2226	29th Aug. 1866	Joseph Richards. Robert Grindle.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
JOINING, &c.—*continued.*			
Joints or connections for pipes - - - (*Communicated by Anton Richter and Romuald Bozek.*)	2244	31st Aug. 1866	Charles Denton Abel.
Improved apparatus for steering steam vessels -	2327	10th Sept. 1866	William Joseph Curtis.
Improvements in the connecting parts of machinery and structures liable to impulsive forces.	2334	11th Sept. 1866	Frederick Arthur Paget.
An improved mode of and means for uniting and securing the ends of bands or hoops designed for baling cotton, wool and other substances -	2345	12th Sept. 1866	Solomon Woodall. Jacob Martin Van Winkle.
Clips or fastenings for the bands of purses and pocket books, and for other bands, and for other like purposes.	2373	15th Sept. 1866	Thomas Newey.
Improvements in the construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hot-houses and drying houses - - -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Apparatus for consuming smoke and economising fuel.	2458	25th Sept. 1866	Henry Turner.
Manufacture of pianofortes - - -	2488	26th Sept. 1866	George Henry Brockbank.
Apparatus for steering vessels - - - (*Communicated by Maurice Aron.*)	2521	29th Sept. 1866	William Clark.
Securing or fastening screw bolts and nuts when tightened up. (*in rail joints.*)	2826	31st Oct. 1866	John Patterson.
Apparatus for transmitting and controlling motion (*coupling and break.*)	2867	5th Nov. 1866	Robert Anthony Hardcastle.
Fastenings or couplings - - - - (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Improved means of forming joints between sashes, doors, drawers and other structures, and the frames in which they move or are fitted.	2959	12th Nov. 1866	John Richard Cadman.
Improvements in the construction of pipes, and in the mode of joining the same, for the transmission of gas, water, steam, air and other fluids.	2983	14th Nov. 1866	Thomas Seaville Truss.
Connecting together the ends of iron or other metal bands used in baling cotton, wool and other bale goods packed under pressure.	2991	15th Nov. 1866	Henry Lampson.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - - (*coupling pin.*)	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Self-acting machinery or apparatus for uniting together two or more strips of leather or other material, to be used as machine belts, straps or bands, or for other similar purposes - -	3099	24th Nov. 1866	Charles Henry Southall. Robert Heap. John Tasker.
Forming the joints of iron and other tubes or pipes.	3136	28th Nov. 1866	Louis Alexandre Fargon.
Connections between railway engines and carriages - - - - - -	3164	1st Dec. 1866	Walter Butler. Alexander Dalgety.
An improved method of securing the nuts of bolts (*used in jointing rails.*)	3334	19th Dec. 1866	Rudolph Bodmer.
An improved fastening for baling bands - -	3335	19th Dec. 1866	Samuel Wilson.
Improvements in centrifugal pumps and in the joints or junctions of pipes and tubes. (*Communicated by Louis Coignard.*)	3336	19th Dec. 1866	Michael Henry.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
JOINING, &c.—*continued.*			
An improved coupling for railway carriages - (*Communicated by George Dennis Spooner, John Frederic Fish Hale and Anrel Clement Stiles.*)	3360	20th Dec. 1866	William Robert Lake.
Improvements in the manufacture of straps or belts for driving machinery, and in a new or improved construction of joint or coupling for the ends of such and other like belts.	3426	29th Dec. 1866	William Wilby.
KNIVES, FORKS, SPOONS, SCISSORS, SHEARS; CLEANING KNIVES, FORKS AND SPOONS.			
An instrument for cutting and cleaning finger nails.	8	1st Jan. 1866	Charles Schwartz.
Shears or scissors - - - (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
The manufacture and application of scales and handles suitable for knives and other articles of cutlery, from substances not hitherto employed for that purpose - - - - -	142	16th Jan. 1866	John Bottom. William Bottom.
Machinery for the manufacture of paper bags - (*cutters.*) (*Communicated by Benjamin Spencer Binney.*)	223	23rd Jan. 1866	William Clark.
Certain improvements in reaping and mowing machines - - - - - - (*construction of knives.*)	368	7th Feb. 1866	Reubin Sims. John Beard. Robert Burns.
A new or improved travelling knife for opening metal provision cases, and an apparatus to be used therewith.	599	27th Feb. 1866	Robert Yeates.
Chaff cutting machines - - - - -	639	2nd March 1866	Edmund Winder Otway.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*ornamenting handles of cutlery.*)	740	10th March 1866	Philip Henry Ashberry.
Shears and scissors - - - - -	795	17th March 1866	Rolla Badger.
Stamping on flatted or unflatted metals - (*on spoons or forks.*)	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Improvements in apparatus and in the application thereof for the shearing of sheep and other animals.	1645	19th June 1866	Arthur Dallison Renshaw.
Manufacturing of cutlery handles and machinery employed therein - - - - -	1742	30th June 1866	Frederic Kahnt. John Bunting.
Improved machinery or apparatus and processes for the manufacture of paper pulp from wood and other fibrous materials - - - -	1980	1st Aug. 1866	Joseph Sawyer. Frederick Bauman.
Manufacture of knives and forks - -	2075	13th Aug. 1866	Henry Sanderson.
Improved apparatus for cleaning and polishing boots, shoes and knives.	2284	5th Sept. 1866	Reginald Samuel Mordaunt Vaughan.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
KNIVES, &c.—*continued.*			
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated. (*for stamping spoons.*)	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
Forks, steels and knife sharpeners - - -	2663	15th Oct. 1866	Ebenezer Stevens.
Means and machinery for clipping horses and other animals.	2796	30th Oct. 1866	Patrick Adie.
Improvements in machinery or apparatus for cleaning boots and shoes, also applicable to the cleaning of other articles - - - - (*cleaning plate.*)	2800	30th Oct. 1866	Henry Churchman. Frederick Braby.
Apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut.	2808	30th Oct. 1866	Henry Martyn Nicholls.
Pocket knives - - - - - - (*Communicated by William Sausser.*)	2923	9th Nov. 1866	William Edward Newton.
An improved machine for pegging boots and shoes. (*flexible knife.*) (*Communicated by Reuben Whitehouse Drew.*)	3237	8th Dec. 1866	George Haseltine.
An improvement in the manufacture of sheep shears.	3255	11th Dec. 1866	William Hopkinson.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*cutlery, shear blades, &c.*) (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
Apparatus for cleaning knives - - -	3358	20th Dec. 1866	Thomas Huckvale.
LAMPS, LANTERNS, CHANDELIERS, CANDLESTICKS; LAMP FURNITURE, GLASSES AND SHADES; LIGHTING, PRODUCING LIGHT.			
An improved extensible apparatus for the passage of gases and fluids, especially adapted for gasaliers. (*Communicated by Edmond Robin and Henri Robin.*)	15	2nd Jan. 1866	Richard Archibald Brooman.
Lamps - - - - - - - (*Communicated by Anson Henry Platt.*)	113	13th Jan. 1866	William Robert Lake.
Lamps for burning kerosene or volatile oils, or other hydrocarbon fluids.	116	13th Jan. 1866	Charles Newell Tyler.
Apparatus for catching fish - - - (*employing artificial light.*)	193	20th Jan. 1866	Alexander Bryson.
Lamps for burning paraffin, petroleum, belmontine and other hydro-carbon oils, without the use of a glass chimney.	203	22nd Jan. 1866	Thomas Rowatt.
Lamps for burning magnesium - - - (*Communicated by Robert Henry Thurston.*)	261	26th Jan. 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LAMPS, &c.—*continued.*			
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*applicable to lighting.*)	265	26th Jan. 1866	Henry Sherwood.
Obtaining motive-power either giving or not giving light. (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Lamps - - - - - - - (*Communicated by Victor Delaye Le Paul and Jules Garrigue.*)	306	31st Jan. 1866	Henri Adrien Bonneville.
Railway and other lamps - - - -	307	31st Jan. 1866	Charles Emile Giajola.
An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fireworks and for other purposes.	309	31st Jan. 1866	Alexander Dembinsky.
Construction and lighting of railway carriages -	364	6th Feb. 1866	Richard Clark.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*carriage lamps.*)	369	7th Feb. 1866	Uriah Scott.
Improvements in obtaining and applying artificial heat for producing light aud for other purposes, and in the apparatus employed therein. -	447	13th Feb. 1866	Samuel Marland. William Horatio Smith. William Wells.
Shipe' binnacle lamps - - - -	556	23rd Feb. 1866	William Nunn. Charles Williams Brown.
Detonating and light signals for railways and other uses - - - - - -	595	27th Feb. 1866	William Peter Le Keux. Frederick Augustus Wishart.
Improvements in signal, street and other lamps, and in gas-burners.	619	28th Feb. 1866	Richard Clark.
Means or apparatus for obtaining light by the combustion of magnesium.	729	9th March 1866	Richard Larkin.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*ornamenting chandeliers.*)	740	10th March 1866	Philip Henry Ashberry.
A new or improved lamp and the materials to be consumed thereby.	771	15th March 1866	Elizabeth Lichtenstadt.
An improved fly for moderating or regulating the movements of wheelwork. (*lamps.*)	870	24th March 1866	Philipp Stieffel.
Arrangement and construction of lamps suitable for burning volatile oils or spirits, such as benzole or other light hydro-carbon oils. (*Communicated by Philip Lichtenstadt.*)	1020	10th April 1866	Elizabeth Lichtenstadt.
An improved mode of and means for lighting and extinguishing street and other gas lamps and burners. (*Communicated by James Burnum Sweet.*)	1120	20th April 1866	George Haseltine.
Certain improvements in gas lamps subject to the exposure of high winds and uncertain draughts.	1188	27th April 1866	James Wavish.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LAMPS, &c.—*continued.*			
Improvements in or connected with lamps and burners, and an improved apparatus for lighting lamps.	1229	1st May 1866	Richard Hugh Hughes.
Apparatus to be employed in evaporating volatile and combustible liquids to obtain light or heat therefrom - - - - -	1320	8th May 1866	James Lee Norton. Alfred Giles.
Improvements in candlesticks and apparatus connected therewith.	1344	10th May 1866	John Laurie Rickards, M.I.C.E.
Lamps for burning mineral and other oils - - (*Communicated by Etienne Jammes.*)	1394	16th May 1866	William Clark.
Improved adaptable ends for candles - -	1420	19th May 1866	John Lyon Field. John Kingsford Field.
Lamps for burning petroleum oil and other volatile liquid hydrocarbons - - -	1439	22nd May 1866	James Hinks. Joseph Hinks.
Construction of lanterns - - - -	1607	13th June 1866	James Alexander Forrest.
Miners' safety lamps - - - -	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.
A new application of the electric light for lighting buoys of every description.	1651	20th June 1866	Adolphe Miroude.
Lamps - - - - - -	1744	30th June 1866	John Jackson.
Certain improvements in lamps - - -	1872	18th July 1866	John Moffat.
Gas pendants, gasaliers and gas brackets - -	1889	20th July 1866	Francis Joseph Rowley.
Lamps and other lighting and heating apparatus fed by mineral or other volatile liquids.	1907	23rd July 1866	Alexandre Magnin.
Lamps for burning petroleum oil and other volatile liquid hydrocarbons - - -	1930	25th July 1866	James Hinks. Joseph Hinks.
Construction of portable lanterns - - -	2028	7th Aug. 1866	George Barnes Windle.
An improved lamp - - - - -	2032	7th Aug. 1866	George Warriner. William Henry Stallard.
A new or improved apparatus for consuming smoke from gas and other lamps.	2096	15th Aug. 1866	Charles Brown.
Lamps for burning a combination of mineral and vegetable spirits.	2147	22nd Aug. 1866	James Syson Nibbs.
Street gas lamps - - - - -	2280	5th Sept. 1866	James Wilson.
An improved float light - - - -	2301	7th Sept. 1866	Coleman Defries.
Apparatus for lighting the floats of lights in theatres and other places - - -	2318	10th Sept. 1866	William Vincent. George Richard Westcott.
Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas-burners or meters - - - -	2357	13th Sept. 1866	George Henderson David McNeil.
Lamps for burning paraffin oil and other volatile liquid hydro-carbons.	2442	22nd Sept. 1866	Frederick Richard Mosley.
Improvements in lamps for and in the mode of burning volatile oils, spirits and other fluids. (*Communicated by Henry Arthur Gadsden.*)	2471	25th Sept. 1866	Henry Starr.
Improvements in the arrangement and construction of lamps for burning volatile oils or spirits, and in the preparation of the materials for burning in such lamps. (*Communicated by Philip Lichtenstadt.*)	2575	6th Oct. 1866	Elisabeth Lichtenstadt.
Manufacture of coloured glass windows and other translucent surfaces. (*lamps.*)	2665	15th Oct. 1866	Philip Harry Newman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LAMPS, &c.—*continued.*			
Apparatus for lighting and heating - - (*Communicated by Jean Baptiste Marie Amédée Bourreiff.*)	2755	25th Oct. 1866	Clinton Edgcumbe Brooman.
Improvements in or applicable to lamps - - (*Communicated by Thomas Hall.*)	2769	26th Oct. 1866	Nathaniel Hubbard Loomis.
Securing perfect immunity from danger in the use of parafine, camphine and other lamps liable hitherto to explode, whether fed by rock oil, crystal oil, parafine, camphine, belmontine or other combustible carbonaceous oils.	2778	27th Oct. 1866	Edward Howard.
Lamp glasses or chimneys - - - - (*Communicated by Joseph Lallemend and Godefroi Auguste Guillaume Wagener.*)	2823	31st Oct. 1866	William Clark.
Lamps - - - - - - (*Communicated by Aaron Calhoun Vaughan and Robert Wallace Park.*)	2828	1st Nov. 1866	John Henry Johnson.
Reflectors and ventilators in connection with gas and other lights.	2841	2nd Nov. 1866	George Watson.
Improvements in illuminating light-houses, private residences, railway stations, mills, factories and other buildings, and in apparatus and gas-burners employed for that purpose.	2871	6th Nov. 1866	John Richardson Wigham.
Fastenings or couplings - - - - - (*for lamps.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Certain improvements in coal oil lamps - - (*Communicated by George Hall.*)	2958	12th Nov. 1866	Alfred Vincent Newton.
Safety lamps - - - - - -	3045	20th Nov. 1866	Evan Thomas.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*lamp posts.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Shades or protectors for shielding the eyes from the glare of strong light.	3085	23rd Nov. 1866	Frederick Tyerman.
An improved lighting, heating and cooking apparatus.	3156	1st Dec. 1866	James Webster.
Electro-magnetic and magneto-electric machines - (*for producing light.*)	3209	6th Dec. 1866	Henry Wilde.
Ornamenting glass - - - - - (*globes for lamps.*)	3270	13th Dec. 1866	John Robinson.
Carburetters - - - - - - (*for head lights, &c.*) (*Communicated by Francis Stebbins Pease.*)	3308	15th Dec. 1866	William Clark.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting, heating, and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	21st Dec. 1866	William Clark.
For lamp burners, *see* "GAS BURNERS."			

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LEATHER, SKINS AND HIDES; ARTIFICIAL LEATHER AND PARCHMENT; CURRYING, TANNING, CUTTING AND ORNAMENTING LEATHER.			
A new or improved material or composition of materials suitable as a substitute for leather in various applications. (*Communicated by Philipp Wenzel.*)	4	1st Jan. 1866	Martin Löhren.
An improved method or process of curing and tanning hides or skins. (*using alcohol.*)	33	4th Jan. 1866	William Henry Towers.
Certain improvements in machinery or apparatus for cutting, shaving, thinning and grinding skins, hides or pelts, in a tanned, dressed or partly dressed state - - - - -	75	10th Jan. 1866	James Clunan. Noah Nightingale.
Preparing and treating hides and skins in the manufacture of leather - - -	233	24th Jan. 1866	Edward Turney. John Turney.
Manufacture of leather fabrics - - -	272	27th Jan. 1866	John Harcourt Brown.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improved machinery or apparatus for reducing the thickness of parts of calf skins or of other skins or hides. (*Communicated by Adolphe Bel.*)	493	16th Feb. 1866	William Edward Gedge.
Preparing hides and skins for tanning - -	550	22nd Feb. 1866	Clemente de Caesaris.
An improved process of and apparatus for extracting tan, bark and other vegetable materials. (*Communicated by Samuel White Pingree.*)	617	28th Feb. 1866	William Edward Newton.
Rotary brushes and apparatus for brushing, currying or dressing the skin or hair of animals or hides - - - - - - -	620	1st March 1866	Samuel Henton. Charles John Henton.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes. (*for purifying tan pits.*)	642	3rd March 1866	Victor Larnaudès.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather.	748	12th March 1866	Charles Linford.
Certain improved agents suitable for cleaning and such like purposes. (*removing stains from hides and skins.*)	837	21st March 1866	Charles Rozière.
Manufacture of leather cloth - - -	907	29th March 1866	Thomas Storey. William Virgo Wilson.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*skins for tanning.*)	921	31st March 1866	James Davis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LEATHER, &c.—*continued.*			
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*dipping hides.*)	922	31st March 1866	James Davis.
Leather splitting machines - - - (*Communicated by Amzi Hancen Van Gieson.*)	926	31st March 1866	Edward Thomas Hughes.
Apparatus for fleshing and shaving hides and skins of animals, in the raw, tanned or dressed state.	979	5th April 1866	William Ingham.
Apparatus and processes for tanning - - (*Communicated by James Johnston.*)	1048	13th April 1866	James Marius Macrum.
Preparing hides and skins for tanning - -	1271	4th May 1866	Clemente de Caesaris.
Manufacture of paper hangings - - - (*producing imitation embossed leather.*)	1447	23rd May 1866	Paul Marie Balin.
Improvements in tanning hides and skins, and in currying leather. (*Communicated by Moses Webster Page.*)	1518	31st May 1866	George Tomlinson Bousfield.
Improved apparatus for treating corn and other materials. (*or for tanneries.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Preserving animal substances - - - (*hides.*)	1707	27th June 1866	Henry Medlock. William Bailey.
Manufacture of leather - - - -	1746	30th June 1866	Toussaint François Gillot.
Improved machinery for crimping leather for boot fronts. (*Communicated by John P. Jamison.*)	1821	11th July 1866	Alfred Vincent Newton.
Tanning of hides and skins - - -	1915	23rd July 1866	George Mountford. George Lomas Loversidge.
Imitating mother of pearl upon various surfaces - (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.
Improvements in leather and in machines for manufacturing the same. (*Communicated by George Valentine Sheffield and James Fitch Coburn.*)	2316	8th Sept. 1866	William Clark.
A new and useful machine which may be employed for scouring, sleeking or setting hides or leather.	2325	10th Sept. 1866	Edward Fitzhenry.
Machinery or apparatus for cleaning and polishing boots and shoes, harness and other manufactured leather goods.	2429	21st Sept. 1866	Thomas Challinor.
Manufacture of leather binding - - - (*Communicated by Matthew Henry Merriam and Eugene Lindsey Norton.*)	2585	8th Oct. 1866	George Haseltine.
Improvements in drying tan and in the machinery or apparatus employed for that purpose. (*Communicated by Laurent Bréval.*)	3042	20th Nov. 1866	Charles Denton Abel.
Self-acting machinery or apparatus for uniting together two or more strips of leather or other material, to be used as machine belts, straps or bands, or for other similar purposes.	3099	24th Nov. 1866	Charles Henry Southall. Robert Heap. John Tasker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LEATHER, &c.—*continued.*			
Manufacture or preparation of leather and other materials. (*Communicated by Jean François Piedalle.*)	3114	26th Nov. 1866	William Clark.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*for use in tanning.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
LOCKS, LATCHES, BOLTS, LOCK FURNITURE; KEYS, SAFES, STRONG BOXES.			
Locks - - - - - - - (*Communicated by Frederic Rudolph Vollschwitz, John James Schlaepfer and Charles Frederic Rauchfuss.*)	48	6th Jan. 1866	Frederick Tolhausen.
Apparatus to be used for protecting property from fire and thieves. (*for safes or strong rooms.*)	96	11th Jan. 1866	William Atkins Rudling.
Bolts for doors and other purposes - -	207	22nd Jan. 1866	David Jones. John Upton.
An improved construction of certain parts of metallic chests, strong rooms, safes, deed boxes and such like receptacles.	541	21st Feb. 1866	William Deakin.
Iron safes - - - - - - -	552	23rd Feb. 1866	John Coope Haddan. Herbert John Haddan.
Improvements in keys for watches and clocks, parts of which improvements are applicable to the keys of ordinary locks.	637	2nd March 1866	James Carpenter.
Improvements in the construction and mounting of safes, part of which improvements is applicable to shutters and doors of buildings where security is required.	641	2nd March 1866	James Tansley.
An improved apparatus or detector for rendering safes secure from burglary.	648	3rd March 1866	Albert Hosking.
Iron safes and strong rooms - - -	685	6th March 1866	John Chubb.
Construction of wrought-iron safes - - -	694	7th March 1866	George Price.
Certain improvements in safes or similar depositories.	717	9th March 1866	Thomas Bewsher Moxon.
Improvements in the doors or covers of safes, strong rooms and other receptacles of property, and parts surrounding such doors or covers -	754	13th March 1866	Joseph Jessop. William Warburton.
Construction of safes - - - - -	792	17th March 1866	Thomas Sagar. George Keighley.
Safes or receptacles for containing and securing valuable property.	799	17th March 1866	Frederic Hinton.
Iron safes, strong rooms and doors - - -	895	27th March 1866	John Bracher.
Certain improvements in the manufacture of iron safes and other strong boxes.	911	29th March 1866	Reuben Noake.
Certain improvements in the construction of safes and other similar depositories.	930	31st March 1866	George Hindshaw.
Certain improvements in the construction of safes and other similar depositories - - -	954	4th April 1866	John Maddocks. William Dunn.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LOCKS, &c.—*continued.*			
Certain descriptions of locks	1056	14th April 1866	Thomas Cooper, the younger.
Means employed in attaching knobs to the spindles of mortise and other similar locks or fastenings.	1100	19th April 1866	George Beadon.
Fastenings for doors, safes, boxes, drawers and other applications where locks or fastenings are required.	1118	20th April 1866	James Allen.
Connecting knobs or handles and their spindles to locks and latches.	1352	11th May 1866	John Matthias Hart.
Improvements in and connected with thief and fire proof safes.	1387	16th May 1866	John Sacheverell Gisborne.
Safes, strong rooms, iron doors and their locks	1390	16th May 1866	Elihu Price. Cyrus Price.
Locks and latches	1545	4th June 1866	Joseph Beverley Fenby.
Improvements in the construction of safes, strong rooms and other similar depositories, and in the locks thereof.	1570	7th June 1866	Antoine Grivel the the younger.
Safes or receptacles for valuable property	1587	11th June 1866	John Baxter. John Hunt.
Construction of locks (*for safes, &c.*)	1597	12th June 1866	Frederick William Kurz.
Construction of safes or strong rooms	1598	12th June 1866	Frederick William Kurz.
Locks	1635	16th June 1866	Archibald Macdonald.
Improvements applicable to locks (*Communicated by George Kitteridge.*)	1638	16th June 1866	George Henry Hopps.
Safes	1671	22nd June 1866	Edward Peyton.
Locks or fastenings (*Communicated by Chretien Goynaud and Jacques Eugene Dollier.*)	1688	25th June 1866	Clinton Edgcumbe Brooman.
An improved safety lock (*Communicated by Louis Jean Pierre Silvestre.*)	1750	2nd July 1866	Henri Adrien Bonneville.
Improvements in or applicable to handles for actuating locks, bars, bolts or latches.	1865	17th July 1866	William Burrow Shorland.
Safes	1977	1st Aug. 1866	Edwin Isaac Billing.
An improvement in the construction of safes, strong rooms and other similar depositories.	1993	2nd Aug. 1866	Isaac Eldon Chiecott.
Fire and thief proof safes	2152	22nd Aug. 1866	Henry Royall Minns.
An improved apparatus or detector for rendering safes secure from burglary.	2256	3rd Sept. 1866	Albert Whitford Hosking.
Affixing knobs or handles to the spindles of door furniture.	2492	27th Sept. 1866	William Reid Corson.
Iron safes and strong rooms	2856	3rd Nov. 1866	John Chubb. William Henry Chalk.
Certain improvements in apparatus for rendering the security of safes and other depositories more effectual	2894	7th Nov. 1866	Walter Goodbrand. Thomas Eccles Holland.
Locks (*Communicated by Auguste Léon Gennerat.*)	2987	14th Nov. 1866	William Clark.
Certain improvements in the manufacture of safes and other similar depositories, and in the construction thereof.	3064	22nd Nov. 1866	James Nicholson.
Construction of safes and key boxes to be used by bankers and others.	3265	12th Dec. 1866	Samuel Chatwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
LOCKS, &c.—*continued.*			
Locks and latches - - - -	3420	29th Dec. 1866	Arthur John Adams.
Certain improvements in the construction of locks and keys.	3441	31st Dec. 1866	Herbert Allman.
LOOKING-GLASSES AND FRAMES.			
Ventilators and mirrors for hats and other coverings for the head.	2	1st Jan. 1866	Joseph Boonham Croxall.
Manufacture of hats and other coverings for the head. (*fixing a mirror inside.*)	10	1st Jan. 1866	Montague Montagu.
Centres for supporting swinging mirrors - -	245	25th Jan. 1866	James Soutter Senr.
An improved looking-glass press, including an incombustible strong box.	1800	9th July 1866	Pierre Joseph Bellot Senr.
Metallic mirrors - - - -	2018	6th Aug. 1866	John William Hoffman. George Rowe Wilson.
An improvement or improvements in manufacturing, decorating and ornamenting articles of furniture. (*pier glasses.*)	2343	12th Sept. 1866	James Pratt Bright.
MANGLING, IRONING, GOFFERING, ROUCHING.			
Improved machinery for pressing and ironing hat bodies. (*Communicated by Nicholas Bunning Hooper.*)	188	20th Jan. 1866	William Edward Newton.
Machinery or apparatus for washing, wringing and mangling textile and felted fabrics of all descriptions, also applicable to the washing of ores, gold and silver dust and other metals, flocks, hair, tow and other similar materials.	280	29th Jan. 1866	Benjamin Farmer.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*goffering.*) (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improvements in copying presses, which improvements are also applicable to mangles or linen presses.	438	12th Feb. 1866	Charles Arnaud.
Apparatus for calendering, mangling or finishing -	643	3rd March 1866	Robert Walker.
Improvements in ornamenting lace fabrics and in the machinery or apparatus employed therein. (*by a goffering or crimping machine.*)	656	3rd March 1866	Charles Grey Hill.
Apparatus for ironing and finishing linen and other fabrics. (*Communicated by James Lyall and William Lyall.*)	765	14th March 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MANGLING, &c.—*continued.*			
Machinery or apparatus for soaping, washing, fulling, milling, wringing, mangling and ironing clothes and fabrics.	1423	19th May 1866	Nicholas Walton.
A new or improved portable mangle - - (*Communicated by Henry William Putnam.*)	1528	1st June 1866	John Clyne.
Improved machinery for crimping leather for boot fronts. (*Communicated by John P. Jamison.*)	1821	11th July 1866	Alfred Vincent Newton.
Apparatus for washing, wringing and mangling -	1887	20th July 1866	William Burgess.
Certain improvements in the construction and mode of working calenders and mangles used in finishing textile fabrics - - - -	2078	14th Aug. 1866	Robert Wilson. William Martin, Junr.
Manufacture of the handles of sad irons and other smoothing and tailors' and batters' irons.	2313	8th Sept. 1866	John Silvester.
An improved machine for wringing and mangling -	2440	22nd Sept. 1866	Thomas Atkinson junr.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
An improved construction of iron for ironing - (*Communicated by Clemente Augusto d'Assumpcao.*)	3072	22nd Nov. 1866	Clinton Edgcumbe Brooman.
Certain improvements in machinery or apparatus for pressing, smoothing or 'ironing' the surfaces of fabrics.	3211	6th Dec. 1866	Louis Cobe.
MANTEL-PIECES.			
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*mantelpieces.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
MANURE; TREATING SEWAGE.			
Treatment of sewage and urine in order to recover the manurial constituents therefrom.	101	12th Jan. 1866	Francis Sutton.
A new or improved description of manure - -	191	20th Jan. 1866	Adolphe François Mineur.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes. (*for purifying manure factories.*)	642	3rd March 1866	Victor Larnaudès.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*the residuum is a fertiliser.*)	667	5th March 1866	James Gray.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MANURE, &c.—*continued.*			
Machinery or apparatus for reducing, pounding and softening hard or tough substances. (*producing bone dust.*)	691	7th March 1866	John Patterson.
Manufacture of manures - - - -	773	15th March 1866	Alfred George Lock.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
An improvement in treating bones and in the manufacture of the products thereof.	915	29th March 1866	John Cowdery Martin.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilising the same for agricultural purposes.	921	31st March 1866	James Davis.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures.	922	31st March 1866	James Davis.
Preparation and application of malt grains or brewers' refuse as a manure.	949	3rd April 1866	Alfred George Lock.
Means of and apparatus for utilizing sewage matters and liquids.	1026	10th April 1866	George William Shinner.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel. (*for manure.*)	1041	12th April 1866	John James Bodmer.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses.	1163	25th April 1866	George Edward Noone.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
Apparatus applicable to sewers and drains for separating the fluid and solid parts of sewage.	1820	11th July 1866	Charles Edward Austin.
Improvements in the purification of water, and in the disinfection and preservation of putrescent and putrescible matters. (*Communicated by Dr Willy Kühne.*)	2107	16th Aug. 1866	Adolph Kühne.
Treating and purifying water - - - (*sewage water.*)	2218	28th Aug. 1866	Robert Irvine.
Means of and apparatus for utilizing sewage matters and liquids.	2606	9th Oct. 1866	George William Shinner.
Improvements in machinery or apparatus for raising or elevating sewage water and other liquid matters, also applicable as a means of affording motive-power from water.	2675	16th Oct. 1866	Thomas Woodward.
Apparatus for receiving, drying and deodorizing human excrement.	2750	24th Oct. 1866	Francis Taylor.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MANURE, &c.—*continued.*			
An improved manure obtained by an improved process of purifying foul waters. (*Communicated by Jules Houseau and Eugène Devedeix.*)	2926	10th Nov. 1866	Henri Adrien Bonneville.
Improvements in the construction of dry closets, and in apparatus for preparing manure.	2988	14th Nov. 1866	James Conyers Morrell.
Construction of hay, manure and other forks - (*Communicated by John Alexander Montgomery.*)	3043	20th Nov. 1866	George Haseltine.
Arrangements and apparatus for measuring and controlling the supply of water for closets and general uses, and for the deodorisation, removal and utilisation of excrementary matters.	3296	15th Dec. 1866	Thomas Hoey.
Treatment of substances containing phosphate of lime.	3359	20th Dec. 1866	Charles Norrington.
Improvements in treating excrementitious matters, and other refuse matters, for the purpose of obtaining valuable products therefrom, and in apparatus to be employed for that purpose.	3401	28th Dec. 1866	William Bradburn.
MAPS AND CHARTS.			
Improvements in photography, and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*maps, &c.*) (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
An improvement in the manufacture of waterproof paper. (*for maps and charts.*)	675	6th March 1866	Reuben German Allerton.
Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper.	1153	24th April 1866	Rachel Stackhouse.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*skeleton maps.*)	1582	8th June 1866	Henry Josiah Griswold.
An improved roller for window-blinds, maps, almanacks and other similar articles.	1893	21st July 1866	William Stamford Davis.
Apparatus for lowering and raising window-blinds, curtains, maps and the like - - -	1944	26th July 1866	John William Hoffman. George Rowe Wilson.
Apparatus for raising and lowering window-blinds, windows, maps and other articles, and retaining them in any required position.	3386	21st Dec. 1866	George Allix.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MATCHES, FUSES, PIPE AND CIGAR LIGHTS.			
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key. (*receptacle for matches.*)	1166	25th April 1866	Henry Charles Butcher.
Improvements in lighting apparatus applicable to lighting cigars and pipes. (*Communicated by François Dedeyn.*)	1301	7th May 1866	William Clark.
Improvements in the manufacture of tapers and of friction matches, and in the means of igniting friction matches.	1324	8th May 1866	Samuel Alexander Bell.
An improved combustible and inextinguishable compound - - - - - - (*for making fusees.*)	1411	18th May 1866	James Sharp. Robert Smith.
Improvements in shells and in fuses used with shells	1555	5th June 1866	Charles Ambrose M'Evoy.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*match boxes.*)	1898	21st July 1866	Edward Tomlinson.
Machinery or apparatus for cutting splints for making matches.	2166	23rd Aug. 1866	Thomas Allen.
The improvement of wicks for burning - - (*for wax vestas.*)	2381	17th Sept. 1866	Robert M. Letchford.
Improvements in the manufacture of safety fuzes, and in the machinery, apparatus or means employed therein. (*Communicated by William Robert Whitehorn.*)	2771	26th Oct. 1866	James Harebooth Greaham.
Manufacture of blasting cartridges and fusees -	3301	15th Dec. 1866	Alexander Rollason.
Manufacture of metallic boxes - - - (*to hold matches.*)	3428	29th Dec. 1866	Friedrich Leonardt.
MEASURING AND GAUGING LENGTH, SIZE AND QUANTITY; LOOM AND OTHER MACHINE REGISTERS; APPOINTMENT AND DATE INDICATORS.			
Apparatus for drawing off and measuring liquids -	93	11th Jan. 1866	Joseph Cook Angus. George Stuart.
An improved construction of watch or time-keeper for watchmen - - - - - (*or tell-tale.*) (*Communicated by Johannes Bürk.*)	164	17th Jan. 1866	Henry Abenheim. Emil Abenheim. Leopold Abenheim.
Apparatus for measuring and blocking drapery goods, paper hangings and such like purposes.	325	2nd Feb. 1866	William Boase.
Pocket rules - - - - - - (*Communicated by Benjamin Green Martin.*)	534	21st Feb. 1866	William Robert Lake.
Apparatus for measuring liquds - - -	908	29th March 1866	John Parkes, the younger. James Parkes.
The application of improved apparatus to knitting looms.	1185	27th April 1866	François Antoine Renault.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MEASURING, &c.—*continued.*			
An improvement in moulding or pressing glass (*measuring glasses.*)	1994	2nd Aug. 1866	John Thomas Haden Richardson.
Weighing-machines and indicators	2311	8th Sept. 1866	Christopher Hodgson. James Whitley Stead.
Apparatus for measuring and indicating the quantity of liquid drawn off thereby.	2333	11th Sept. 1866	Robert Anthony Hardcastle.
An improved indicator or register (*for machines.*) (*Communicated by Etienne Théophile Prioux.*)	2340	12th Sept. 1866	William Edward Gedge.
An improved detecting apparatus for registering the time of watchmen, mechanics and other employés.	2646	12th Oct. 1866	Jacob Edward Buerk.
Improved apparatus be used in connection with milling machinery.	2804	30th Oct. 1866	John Wilkinson Junr.
Looms for weaving (*apparatus for counting picks.*)	2978	14th Nov. 1866	James Whitehead.
An improved apparatus for registering the speed of machinery or the distance travelled by vehicles.	2979	14th Nov. 1866	Claude Marie Bathias.
An improved instrument for ascertaining correct measurements.	3018	17th Nov. 1866	David Kirkaldy.
Machines for dibbling or planting grain and seed, and an improved seed feeder and meter for planting machines.	3223	6th Dec. 1866	John Freer.
Arrangements and apparatus for measuring and controlling the supply of water for closets and general uses, and for the deodorisation, removal and utilisation of excrementary matters.	3296	15th Dec. 1866	Thomas Hoey.
Cylindrical printing presses (*registering apparatus.*) (*Communicated by Louis Théodore Verne.*)	3331	19th Dec. 1866	George Davies.
Improvements in or applicable to machines for sizing yarns or threads preparatory to weaving, part of which improvements are applicable to other purposes (*measuring and registering length of yarn.*)	3397	26th Dec. 1866	James Fletcher. William Carr.
Calendar movements for clocks (*Communicated by Henry Horton.*)	3446	31st Dec. 1866	James Theodore Griffin.
For measuring angles, *see* "COMPASSES."			
MEASURING AND REGISTERING PROGRESS OF LOCOMOTIVES, CARRIAGES AND SHIPS; LOGS AND SOUNDERS; CARRIAGE TURNSTILES, REGISTERS AND COUNTING APPARATUS.			
Means and apparatus of communicating motion or power from the engine of a train to any part of the train. (*changing index showing the station.*)	289	30th Jan. 1866	Henry Shaw.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MEASURING, &c.—*continued.*			
Improvements in apparatus for registering the number of passengers entering omnibuses and other carriages, which apparatus is also applicable to registering the number of persons passing through barriers of theatres, ferry gates, workshops and other places - - -	586	26th Feb. 1866	Thomas Edwards the younger. Samuel Iniff.
Improvements in indicating and recording the distance run and direction of a ship or vessel, and in apparatus employed therein - -	843	21st March 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.
An improved method of and instrument for measuring the depth of water and the compression of liquids. (*Communicated by Sidney Edwards Morse and Gilbert Livingston Morse.*)	1404	17th May 1866	William Edward Newton.
Apparatus for recording the distance travelled by vehicles and the time occupied therein. (*Communicated by Leocadio Ramon-y-Garcia.*)	1513	31st May 1866	William Clark.
An improved indicator or register - - (*for vehicles.*) (*Communicated by Etienne Théophile Prioux.*)	2340	12th Sept. 1866	William Edward Gedge.
An improved manometrical sounding apparatus - (*Communicated by Ernest Dubois.*)	2531	2nd Oct. 1866	Frederick Tolhausen.
Carriage indicators stating the distance travelled, the time when they have been hired or not, and if they are hired or not - - -	2597	9th Oct. 1866	Jean Monnin. Charles Bosc. Claude Antoine Boissenot.
An improved apparatus for registering the speed of machinery or the distance travelled by vehicles.	2979	14th Nov. 1866	Claude Marie Bathias.
Means and apparatus for indicating the time and distance travelled by vehicles. (*Communicated by Jules Henry Delaunay.*)	3124	27th Nov. 1866	William Clark.
Apparatus for taking soundings - - -	3346	20th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
Nautical logs - - - - - (*Communicated by Truman Hotchkiss.*)	3430	29th Dec. 1866	Alfred Brewster Ely.
MEDICAL TREATMENT OF ANIMALS, WASHING, DIPPING AND SMEARING MIXTURES.			
Combination of chemical matters, and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject.	169	18th Jan. 1866	William Hibbert.
An improved mechanical valve respirator - - (*for cattle.*)	339	3rd Feb. 1866	William Hibbert.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts. (*for washing and curing animals.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid for the cure of disease among cattle and for other purposes.	642	3rd March 1866	Victor Larnaudès.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Medical Treatment of Animals, &c.—*continued.*			
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*dipping dogs, sheep, &c.*)	922	31st March 1866	James Davis.
An improved method or means to be employed for preventing and curing disease in cattle.	976	5th April 1866	Edward Ellison.
An improved composition for destroying vermin on sheep and other animals, and for preserving them therefrom.	1261	4th May 1866	John Graham Hope.
An improved composition for destroying vermin on sheep and other animals, and for preserving them therefrom.	1274	4th May 1866	John Graham Hope.
Decolorising the products obtained in the distillation of shale, coal and wood including tar, for the purposes of dipping, pouring and smearing sheep, and thus preserving the purity or color and the healthy condition of the wool.	1838	13th July 1866	James Law.
An improved dipping mixture for sheep and lambs	2225	29th Aug. 1866	John Charles Dickinson.
Preparation of food, of a substance to be employed in place of malt, and for the medication of food for animals.	3433	29th Dec. 1866	Johnstone Napier.
Medicines and Curative Apparatus; Medical Baths; Inhaling and Respiratory Apparatus.			
Combination of chemical matters, and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject.	169	18th Jan. 1866	William Hibbert.
A perforated cage for leech vases - - -	192	20th Jan. 1866	Joseph Bradley Shillcock.
An improved mechanical valve respirator - -	339	3rd Feb. 1866	William Hibbert.
Treatment for the cure of the venereal disease in the male sex.	899	27th March 1866	William Temple Cooper.
An improved apparatus for injecting liquids and applying liquids externally.	906	28th March 1866	Henry Joseph Francis Hubert Foveaux.
Manufacture of pancreatic emulsions of solid and liquid fats and oils.	944	3rd April 1866	Julius Schweitzer.
A new unfermented beverage - - - (*medicinal.*)	1080	17th April 1866	Charles Joseph Berry King, M.D.
Infants' feeding bottles - - - -	1409	18th May 1866	Peter Joseph Morand.
An improved apparatus for irrigating the intestines, the vagina, the bladder, the brain, the eyes and eyelids.	1950	27th July 1866	Alexis Victor Mathieu.
The application to medicine, for beverages, and for industrial purposes, of a new gaseous water. (*Communicated by Paul Schutzenberger.*)	1966	31st July 1866	Alfred Paraf.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MEDICINES, &c.—*continued.*			
The production and application of an imponderable fluid, together with the apparatus or means employed therein. (*vital or organic fluid.*) (*Communicated by Martin Ziegler.*)	2536	3rd Oct. 1866	Clinton Edgcumbe Brooman.
Improved apparatus for administering vapour baths and fomentations.	2631	11th Oct. 1866	Robert Henry Bollans.
Medicine for the cure of hooping and other coughs - - - - -	2783	27th Oct. 1866	John Blackman. Edward Blackman.
An improved pill making machine - - -	2854	3rd Nov. 1866	Robert McTaggart. Joseph Holdforth.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes - - - (*chest protectors.*)	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
Apparatus for the prevention of sea sickness - (*see* "FURNITURE.")	3338	19th Dec. 1866	Michael Hodge Simpson
METALLIC SALTS AND OXIDES.			
Manufacture of salt-petre and white-lead - -	301	31st Jan. 1866	Clarence Delafield.
Machinery for packing and pressing black lead and other materials.	470	14th Feb. 1866	Richard Burgess Pilliner.
Improvements in the manufacture of oil and other products from bituminous substances, and in the machinery or apparatus employed therein, which improvements or parts thereof are also applicable to the manufacture of white lead or other pigments.	603	27th Feb. 1866	Hugh Robertson.
Certain improvements in the treatment and utilization of the residual liquor arising from the production of chlorine gas.	753	13th March 1866	William Francis Deane.
Improvements in the process of desulphuration and in the apparatus employed for such process. (*Communicated by Amédée François Rénond.*)	1017	9th April 1866	George Davies.
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fuels from other sources - - - (*collecting metallic salts.*)	1098	19th April 1866	William Oldham. Henry Penn. Charles Eades.
Means and apparatus for reducing metallic oxides - (*Communicated by Jacob Reese.*)	1223	1st May 1866	Charles Denton Abel.
Improvements in the separation of certain metals from their ores, and in the production of sulphide of ammonium to be used in the process, which sulphide is also applicable to other purposes for which that salt is required.	1256	3rd May 1866	Peter Spence.
An improvement in the manufacture of metallic acetates and carbonates simultaneously with the production of vinegar and glucose.	1332	9th May 1866	Robert Rowland.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALLIC SALTS, &c.—*continued.*			
Improvements in the production of sulphide of sodium, and in the treatment thereof for the manufacture of soda.	1355	11th May 1866	Walter Weldon.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets - - - - - -	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*metallic oxides.*)	1568	7th June 1866	John Carrington Sellars.
Manufacture of white lead - - - - - (*Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.*)	1703	26th June 1866	William Robert Lake.
Obtaining alkaline permanganates - - (*Communicated by Cyprien Marie Tessié du Motay and Charles Raphael Marechal, jun'.*)	1726	28th June 1866	Clinton Edgcumbe Brooman.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Hadyn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.
Improvements in drying solid substances and in the apparatus or means employed therein. (*white lead.*)	2453	24th Sept. 1866	Robert Kunstmann.
An improved method of decomposing chloride of sodium and other compounds, by means of steam.	2768	26th Oct. 1866	Walter Weldon.
Preparation of iodide of ethyl and of other organic iodides. (*Communicated by James Alfred Wanklyn.*)	2791	29th Oct. 1866	John Henry Johnson.
Treating waste solutions obtained from burnt cupreous pyrites. (*obtaining peroxide of iron.*)	2858	3rd Nov. 1866	Frederic Claudet.
Manufacture of white lead. - - - - (*Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.*)	3133	28th Nov. 1866	William Robert Lake.
Improvements in the manufacture of white lead and in the vessels connected therewith. (*Communicated by John Harvey Herbert.*)	3180	4th Dec. 1866	Henri Adrien Bonneville.
Treatment of ores of metals of which the sulphates are soluble in water - - -	3212	6th Dec. 1866	Paul Emile de Wissocq. Count Louis Krasinski.
Treatment of lead and argentiferous litharge - (*Communicated by Frederic Cordurié.*)	3273	13th Dec. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS.			
I.—Smelting, Extracting and Reducing Metals; Treating Ores; Refining, Tempering and Annealing Metals; Manufacture of Iron and Steel; Metallic Alloys.			
Furnaces - - - - - - - -	5	1st Jan. 1866	Thomas Prideaux.
Machinery and apparatus for charging blast and other furnaces.	6	1st Jan. 1866	William Barningham.
Smiths' forges and furnaces for smelting and puddling iron, steel and other metals. -	38	5th Jan. 1866	William John Symons. Nathaniel Augustus Tover Symons.
Furnaces - - - - - -	80	10th Jan. 1866	Edward Brown Wilson.
Treatment of copper and nickel ores - - (*Communicated by Viscount Charles de Secqueville.*)	86	10th Jan. 1866	George Chetwynd.
Manufacture of arsenic - - - - -	121	13th Jan. 1866	Brereton Tod.
Machinery and apparatus used in the manufacture of steel and iron.	154	17th Jan. 1866	Francis Preston.
Puddling furnaces and heating furnaces, and other reverberatory furnaces used in the manufacture of iron and steel.	202	22nd Jan. 1866	William Jeffries.
An improvement or improvements in heating furnaces for smelting, puddling, melting and annealing metals, or for the manufacture of glass - - - - - -	208	22nd Jan. 1866	Pynson Wilmot Bennitt. Joseph Matthews.
Machinery for crushing and pulverizing ores and other hard substances.	241	24th Jan. 1866	James Jones.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*applicable to working metals.*)	265	26th Jan. 1866	Henry Sherwood.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*for feeding metallurgical furnaces.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Improvements in the manufacture of coke and in the apparatus connected therewith. (*for iron smelting.*)	269	27th Jan. 1866	Thomas Drane.
Machinery for crushing quartz, ores and other substances. (*Communicated by Abraham Karnes.*)	275	27th Jan. 1866	August Bryant Childs.
Machinery or apparatus for washing, wringing and mangling textile and felted fabrics of all descriptions, also applicable to the washing of ores, gold and silver dust and other metals, flocks, hair, tow and other similar materials.	280	29th Jan. 1866	Benjamin Farmer.
Furnaces for melting metals - - -	342	3rd Feb. 1866	Philip Albert Muntz.
Blowing or blast engines - - - - (*for smelting metals.*)	363	6th Feb. 1866	Robert Gatley.
Manufacturing iron and steel, and the alloyage of metals, together with preparing ores for the same.	554	23rd Feb. 1866	Cyrille Jean Caumon (known as John Absterdam).

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
Apparatus for tempering saws and other articles capable of being tempered between two heated surfaces.	562	23rd Feb. 1866	James Dodge.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*imitations of metals.*)	580	24th Feb. 1866	William Welch.
Improvements in the annealing of metallic plates and in the apparatus or means employed therefor - - - - - -	646	3rd March 1866	George Prentice. Alexander Binny Inglis.
Improvements in the manufacture of zinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes.	671	5th March 1866	Charles William Siemens.
Machinery or apparatus for reducing, pounding and softening hard or tough substances. (*quartz crushing.*)	691	7th March 1866	John Patterson.
Puddling and converting furnaces - - -	700	8th March 1866	Thomas Prideaux.
Improvements in puddling iron and in apparatus employed therein.	702	8th March 1866	Jacob Geoghegan Willans.
Improved arrangements of mechanism for washing and separating ores.	707	8th March 1866	John Hunt.
An improvement in the melting of iron - - (*Communicated by Ernest Christian Haserick.*)	727	9th March 1866	Alfred Vincent Newton.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. ("*Ashberrism metal.*")	740	10th March 1866	Philip Henry Ashberry.
Improvements in the conversion of cast iron into steel, and in the means or apparatus employed therein.	798	17th March 1866	John Heaton.
The prevention or consumption of smoke - -	821	20th March 1866	William Naylor.
Construction of coke ovens - - - (*and calcining ironstone.*)	919	29th March 1866	Charles Pardoe.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures.	922	31st March 1866	James Davis.
Collecting the heated gases from blast furnaces, so as to utilise the same - - - -	1023	10th April 1866	James Sparrow. Samuel Poole.
Machinery for breaking stones and crushing ores and other substances.	1028	11th April 1866	James Frost.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel.	1041	12th April 1866	John James Bodmer.
Machinery for breaking stones, ores and other hard substances.	1064	14th April 1866	Sylvester Franklin Schoonmaker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (*Communicated by Louis Bataille.*)	1079	17th April 1866	Clinton Edgcumbe Brooman.
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources - - -	1098	19th April 1866	William Oldham. Henry Penn. Charles Eades.
An improvement in the manufacture of bar iron and steel. (*Communicated by Bernard Lauth.*)	1104	19th April 1866	Alfred Vincent Newton.
Hot-blast stoves or apparatus for heating blast for smelting iron.	1137	21st April 1866	John Player.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
Furnaces and apparatus for separating heated gases, fumes or vapours from each other, and from solid or liquid bodies - - - - -	1173	26th April 1866	William Edmond. Adolf Gurlt.
Manufacture of steel - - - - (*Communicated by Edwin Louis Bomeisler.*)	1207	28th April 1866	Alfred Vincent Newton.
Means and apparatus for reducing metallic oxides - (*Communicated by Jacob Reese.*)	1223	1st May 1866	Charles Denton Abel.
Improvements in reverberatory blast and other furnaces for smelting ores, and in the means of extracting the precious metals therefrom -	1232	1st May 1866	John Thomas. Alexander Prince.
Manufacture of steel and iron - - -	1248	2nd May 1866	Warren de la Rue.
Obtaining copper and other metals from their ores -	1255	3rd May 1866	Charles Weightman Harrison.
Improvements in the separation of certain metals from their ores, and in the production of sulphide of ammonium to be used in the process, which sulphide is also applicable to other purposes for which that salt is required.	1256	3rd May 1866	Peter Spence.
Manufacture or treatment of iron - - -	1263	4th May 1866	Arthur Thomas Becks.
Manufacture of iron and steel - - -	1291	5th May 1866	Henry Kinnaird York.
Cupola and other furnaces - - - (*for converting iron.*)	1292	5th May 1866	Samuel Chatwood. John Sturgeon.
Apparatus for treating metals, metallic ores and other mineral substances.	1350	11th May 1866	William Prosser.
Treating the residues of pyrites, usually called burned ores - - - - - -	1381	15th May 1866	Warren de la Rue. Hugo Müller.
Means of treating scoria or slag of copper ores, iron pyrites, or scoria from other ores containing iron, and of reducing titanic iron ore for the purpose of extracting the iron therefrom -	1403	17th May 1866	John Thomas. Alexander Prince.
Treating cast iron - - - - (*Communicated by Thomas Blair.*)	1430	21st May 1866	James Livesey.
Certain improvements in the treatment of slags, ores and compounds of tin.	1442	22nd May 1866	Joseph Jean Marcais.
Improvements in blast furnaces and in the manufacture of iron therein.	1469	25th May 1866	Göran Fredrik Goransson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
Use and application of fuel, and of chemical reagents to eliminate its impurities or those of the substances it is to heat - - - -	1471	26th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel - - - - - - (*for ore refining works.*)	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets - - - - -	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Improvements in the method of burning coals (whether large or small coals) coal dust, coke dust, charcoal, wood and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.	1594	12th June 1866	Thomas Joseph Leigh.
Manufacture and remelting of iron and steel -	1617	14th June 1866	Joseph Stenson.
Improvements in smelting iron ores and in apparatus used with blast furnaces.	1734	29th June 1866	Henry Hobson.
Construction of furnaces and kilns - - (*for melting ores.*) (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
A new and improved arrangement of furnace to be applied to steam-boilers, which is also applicable for other purposes - - - - - (*puddling furnaces.*)	1813	11th July 1866	George William Hawksley. Matthew Wilde. Joseph Astbury.
Improvements in the manufacture of iron and cast-iron, and in the apparatus employed therefor.	1823	11th July 1866	Jules Nicolas Fournel.
Refining cast iron - - - - (*Communicated by Thomas Blair.*)	1933	25th July 1866	James Livesey.
Treating iron for the purpose of converting it into steel or hard metal, and for plating or coating and hardening and tempering iron and steel. (*Communicated by Elliot Savage.*)	1938	25th July 1866	William Edward Newton.
Hot blast for smelting and other furnaces -	1962	30th July 1866	Jonathan Pickering.
Washing coal, ores and other minerals - -	1968	31st July 1866	John Addison Birkbeck.
Improvements in machinery or apparatus for stamping, crushing and pulverising ores and other hard substances, which improvements are applicable to power hammers. (*Communicated by William Wright.*)	2024	6th Aug. 1866	John Henry Johnson.
Coating and recovering metals from chlorides and other solutions of metals.	2095	15th Aug. 1866	James Webster.
Manufacture of iron and steel - - -	2101	15th Aug. 1866	John Cameron.
Puddling furnaces - - - - (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces. (*imitation metal.*)	2168	23rd Aug. 1866	William Welch.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
An improved solder or composition for joining certain metals or uniting fractures in certain metals, and for similar uses. (*Communicated by Charles Halot.*)	2252	1st Sept. 1866	Adolphe Lebaudy.
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces.	2259	3rd Sept. 1866	David Caddick.
Manufacture of iron - - - -	2374	15th Sept. 1866	Benjamin Bayliss.
Improvements in the smelting of iron and in furnaces therefor.	2390	17th Sept. 1866	George Dyson.
Improvements in smelting metallic ores and in furnaces to be employed for that purpose	2413	20th Sept. 1866	Charles William Siemens.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Bérard.
Treatment and manufacture of iron and steel -	2452	24th Sept. 1866	John Calvert.
Improvements in puddling and heating furnaces, and other furnaces used in the manufacture of iron and steel.	2494	27th Sept. 1866	John Burgum.
Furnaces for treating metals and other matters - (*Communicated by Louis Adolphe Bon.*)	2527	1st Oct. 1866	William Clark.
Manufacture of steel - - - -	2568	5th Oct. 1866	William George Valentin. George Henry Benson.
Manufacture of cast iron - - -	2607	9th Oct. 1866	Thomas Outram.
Improvements in the melting and casting of steel, and in the apparatus employed therein -	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of malleable iron and steel, and in the apparatus employed in such manufacture - - -	2614	9th Oct. 1866	George Henry Benson. William George Valentin.
Improvements in the manufacture of iron and steel, and in the apparatus employed therein -	2616	9th Oct. 1866	George Henry Benson. William George Valentin.
Furnaces - - - - - -	2625	11th Oct. 1866	Edward Brown Wilson.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*stamping ores.*) (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Extracting metals from titaniferous iron sand or minerals containing metals - - -	2745	24th Oct. 1866	Henry Davidson Plimsoll. John Bailey Davies. William Richard Dawson.
Manufacture of gases for the purpose of producing heat, and the application thereof to metallurgical operations. (*Communicated by William Elmer M.D.*)	2759	25th Oct. 1866	George Tomlinson Bousfield.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*stampers.*) (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
Treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called 'galvanized iron,' and also for manufacturing such plate in imitation of Russia iron. (*annealing.*) (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.
An improved mode of utilizing Bessemer and other steel and iron scrap - - - -	2819	31st Oct. 1866	William Clay. Alfred Bowater.
An improved process for recovering and utilizing certain waste metallic products - - -	2825	31st Oct. 1866	Joseph Henry Shorthouse. John Ferguson.
Lining or 'fettling' for puddling furnaces and containing vessels in which pig or crude iron is converted into wrought iron or steel.	2857	3rd Nov. 1866	John Player.
Treating waste solutions obtained from burnt cupreous pyrites.	2858	3rd Nov. 1866	Frederic Claudet.
Improvements in puddling and in apparatus employed therein. (*Communicated by Pierre Adolphe Dormoy.*)	2866	5th Nov. 1866	Clinton Edgcumbe Brooman.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes.	2940	10th Nov. 1866	Nicholas Korshunoff.
Improvements in the treatment of scoria or slag of copper ores, or scoria from other ores containing iron, in order to extract the iron therefrom, and in refining pig or cast iron to improve the quality of wrought or cast iron - - -	2947	10th Nov. 1866	George Crawshay. John Thomas.
Refining pig or cast iron for puddling into wrought or malleable iron - - -	2948	10th Nov. 1866	George Crawshay. John Thomas.
A new composition applicable to rollers for calico printing and to other purposes. (*mixed metal.*)	2955	12th Nov. 1866	George Frederick Freeman.
Improvements in the treatment of titaniferous iron ores and in extracting iron therefrom, also for utilising the scoria produced - - -	2957	12th Nov. 1866	George Crawshay. John Thomas.
An improved process for combining tungsten with cast iron, by conglomerating reduced wolfram.	3066	22nd Nov. 1866	Pierre René Marie Le Guen.
A new and improved method or process for converting iron into steel, by the action of certain gases, and for producing gases for such purpose.	3111	26th Nov. 1866	Thomas Jabez Barron.
Improvements in the reduction and treatment of zinc ores in the manufacture of spelter, and in the utilization of the products resulting therefrom, and also in the construction of the furnaces and apparatus employed for such purposes.	3117	27th Nov. 1866	Charles Crockford.
Certain improvements in the manufacture of iron and in the means employed for effecting the same.	3189	4th Dec. 1866	William Haden Richardson.
Improvements in the furnaces of steam-boilers, which improvements may be also applied to other furnaces - - - - - (*puddling furnaces.*)	3197	5th Dec. 1866	Thomas Bridges. Joshua Bigwood.
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Smelting*)—*continued.*			
Means of and apparatus for separating substances of different specific gravities. (*metals from impurities.*)	3205	5th Dec. 1866	Thomas Jonas Chubb.
Treatment of ores of metals of which the sulphates are soluble in water - - - - -	3212	6th Dec. 1866	Paul Emile de Wissocq. Count Louis Krasinski.
Manufacture of steel - - - - - -	3266	12th Dec. 1866	Victor Gallet.
Treatment of lead and argentiferous litharge - (*Communicated by Frederic Cordurié.*)	3273	13th Dec. 1866	Clinton Edgcumbe Brooman.
Manufacture and remelting of iron and steel -	3280	13th Dec. 1866	Joseph Stenson.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
Extracting silver from lead - - -	3449	31st Dec. 1866	Clemens Flemming Flach.
II.—Casting and Moulding Metals; Moulds and Core Boxes.			
Machinery or apparatus for the construction or making of moulds for casting in metals.	56	8th Jan. 1866	Archibald Gibb.
Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.	103	12th Jan. 1866	Josiah Timmis Smith.
Machinery and apparatus employed in casting metal tubes and other articles.	172	19th Jan. 1866	William Sumner.
Machinery for making moulds for casting metals -	196	20th Jan. 1866	William Thomas the younger.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
Certain improvements in casting chilled rolls -	463	14th Feb. 1866	Frederick Richard Wheldon.
Improvements in casting metals and in moulds employed therein. (*Communicated by François Antoine Marie Boué.*)	611	28th Feb. 1866	Richard Archibald Brooman.
Construction of ordnance - - - - (*Communicated by James Tyler Ames.*)	673	5th March 1866	William Edward Newton.
Improvements in apparatus employed in casting in metals and other materials, and in the means employed for forming such apparatus.	701	8th March 1866	William Atkinson.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes.	740	10th March 1866	Philip Henry Ashberry.
A new or improved process of transforming scraps or cuttings of Bessemer steel, and other scraps or cuttings of iron, puddled steel and cast steel, into ingots of cast steel. (*Communicated by Emile Martin and Pierre Emile Martin.*)	859	23rd March 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Casting*)— *continued.*			
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies - - - - - -	901	27th March 1866	William Deakin. John Bagnall Johnson.
An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (*Communicated by John Blake Tarr.*)	1001	7th April 1866	Alfred Vincent Newton.
Moulding pipes, pillars, rollers or other articles of a similar character - - - - -	1007	9th April 1866	James Foster. John Hollinrake.
Apparatus for moulding toothed or other wheels or pulliec or portions of circles for casting.	1191	27th April 1866	Thomas Deakin.
Manufacture of metallic bedsteads and other articles of like manufacture.	1427	21st May 1866	James Tombs.
Treating cast iron - - - - - - (*Communicated by Thomas Blair.*)	1430	21st May 1866	James Livesey.
Machinery or apparatus employed when making moulds for casting metals.	1479	28th May 1866	Richard Canham.
Manufacture of cast steel - - - - -	1625	14th June 1866	Victor Gallet.
Machinery for making moulds for casting iron and other metal. - - - - -	1631	16th June 1866	Asa Lees. James Brierley Slater.
Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor - - - - -	2060	10th Aug. 1866	Matthew Andrew Muir. James McIlwham.
Manufacture of seamless metallic tubes - - (*Communicated by William Forman Brooks.*)	2319	10th Sept. 1866	Alfred VincentNewton.
An improved construction of weight - - (*Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.*)	2430	21st Sept. 1866	Alfred Vincent Newton.
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
A new and improved metalfounders' blacking, and mode of treating or preparing the same.	2479	26th Sept. 1866	John Carrington Sellars.
Improvements in the process of casting iron cylinders, or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together.	2518	29th Sept. 1866	Jean Gueunier-Lauriac.
Improvements in casting iron and steel, and in apparatus employed for this purpose.	2522	29th Sept. 1866	Joseph Whitworth.
Grate bars - - - - - - (*Communicated by Samuel Harrison.*)	2559	4th Oct. 1866	John Henry Johnson.
Improvements in the melting and casting of steel, and in the apparatus employed therein -	2612	9th Oct. 1866	George Henry Benson. William George Valentin.
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins.	2660	15th Oct. 1866	John Giles.
Making moulds for casting metals - - (*Communicated by Hadji Jappa.*)	2764	26th Oct. 1866	John Fisher.
Core bars or barrels - - - - -	2914	8th Nov. 1866	Thomas Horsley. George Knighton.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes.	2940	10th Nov. 1866	Nicholas Korshunoff.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Casting*)—*continued.*			
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness.	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
Armour plating for vessels of war, floating or land batteries, and fortifications.	3033	19th Nov. 1866	Jaques Hermann Auguste Gruson.
Manufacture of guns or heavy ordnance of cast metal.	3051	20th Nov. 1866	Jaques Hermann Auguste Gruson.
Improved machinery for making cast-steel railway wheels and other castings in metal. (*Communicated by John Blake Tarr.*)	3123	27th Nov. 1866	Alfred Vincent Newton.
Certain improvements in the method of producing metallic tubes, pipes or other similar hollow articles.	3181	4th Dec. 1866	Joshua Horton.
An improved process and furnace or apparatus for the manufacture of steel or metal having some of the properties of steel.	3203	5th Dec. 1866	Thomas Jonas Chubb.
Machinery for printing and cutting into sheets, rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces - - - - - -	3222	6th Dec. 1866	John Cameron Mac Donald. Joseph Calverley.
An improved apparatus for moulding the moulds of wheels, pulleys and circular and segmental works, in green sand without patterns.	3333	19th Dec. 1866	Jacob Goodfellow.
Casting rings suitable for making tyres of railway wheels and for other purposes.	3414	28th Dec. 1866	Ernst Fredrik Göransson.
III.—Forging, Rolling, Hammering, Rivetting, Bending, Welding and Shaping Metals; Steam Hammers, Anvils.			
Machinery for rolling hoops or tyres for wheels or other purposes.	30	4th Jan. 1866	Thomas Edward Vickers.
Improvements in the manufacture of augers and in the tools or instruments to be used in such manufacture. (*swaging ends of blanks.*) (*Communicated by Russell Jennings.*)	32	4th Jan. 1866	William Edward Newton.
Smiths' forges and furnaces for smelting and puddling iron, steel and other metals - -	38	5th Jan. 1866	William John Symons. Nathaniel Augustus Tover Symons.
An improved mode of heating water for the supply of boilers and for other purposes. (*by exhaust steam from steam hammers.*)	218	23rd Jan. 1866	Thomas Prideaux.
Manufacture of railway bars - - -	260	26th Jan. 1866	William Henry Barlow.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*blast for forges.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
An improved hydraulic steam hammer - - (*Communicated by Monsieur Justin Thevenet.*)	312	31st Jan. 1866	Hector Auguste Dufrené.
Manufacture of axles for railway carriages - (*Communicated by Alfred Motteau.*)	374	7th Feb. 1866	Alexander Horace Brandon.
Manufacture of rails, bars and girders - -	453	13th Feb. 1866	Samuel William Kelly.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Forging*)—*continued.*			
An improved method in the rolling of coach spring, spindle and sheet steel.	464	14th Feb. 1866	William Unwin.
Machinery for rolling wire and wire rods - -	485	15th Feb. 1866	George Bedson.
Improvements in the manufacture of tubes and hollow cylinders, and in the machinery to be employed in the said manufacture. (*rolling.*)	538	21st Feb. 1866	William Webb.
Application of power in actuating rolls in rolling metals - - - - - -	579	24th Feb. 1866	Frederick Charles Winby. Clifford Etches Winby.
An improved apparatus for holding and driving cutting and other tools. (*driving hammers for closing rivets.*)	604	27th Feb. 1866	Frederick Morton Eden.
Improvements in screw-rivets for boots, pegs and screw-nails for various purposes, and in machinery for the manufacture of screw-rivets and screw-nails, a part of which improvements in machinery may also be applied to other purposes.	623	1st March 1866	Alfred Christmas Andrews.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - (*rolling, forming flanges, &c.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Steam hammers - - - - -	668	5th March 1866	William Henry Berry.
Manufacture of railway crossings - - - (*rolling or hammering.*)	698	7th March 1866	William Thomson.
Apparatus used in expanding boiler tubes - (*by rolling.*) (*Communicated by Richard Dudgeon.*)	699	7th March 1866	George Tomlinson Bousfield.
Spades, shovels, forks and other similar implements and tools.	761	14th March 1866	John William Yates.
Machinery for rolling and straightening cylindrical metallic rods and tubes. (*Communicated by Joseph Sidney Seaman.*)	796	17th March 1866	Frederick Collier Bakewell.
Improvements in the manufacture of railway wheels and in apparatus for the same, which apparatus is also applicable for the manufacture of railway buffers.	803	17th March 1866	Pierre Michaud.
Improvements in the manufacture of gun and pistol barrels, and in machinery to be employed in the said manufacture.	822	20th March 1866	Arthur Richard Burr.
An improved construction of power hammer - (*Communicated by Philip Syng Justice.*)	872	24th March 1866	Alfred Vincent Newton.
Improvements in the manufacture of horse shoes and in the apparatus employed therein. (*forming depressions.*)	902	27th March 1866	Joseph Gamgee.
Manufacture of articles made of plates, sheets or bars of wrought iron or of steel.	1106	19th April 1866	Daniel Evans.
Manufacture of sheet iron - - - (*Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.*)	1121	20th April 1866	George Haseltine.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Rolling mills - - - - - -	1225	1st May 1866	John Spencer. Dougald McCorkindale.
Improvements in rails for railways and in the mode of and apparatus for producing the same.	1287	5th May 1866	Jonathan Law Booth.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Forging*)—*continued.*			
Cupola and other furnaces (*for smiths' hearths, &c.*)	1292	5th May 1866	Samuel Chatwood. John Sturgeon.
Machinery for hammering cylinders and other articles of sheet metal	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Machinery for raising and stamping metal	1405	17th May 1866	Daniel Joseph Fleetwood.
Machinery for the manufacture of coiled springs packed with wool or other fibrous materials.	1459	25th May 1866	James William Evans.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same	1462	25th May 1866	William Gibson. Edward Ellis.
Manufacture of rolls for rolling metals	1477	28th May 1866	Caleb Thomas Hill.
Construction of hydraulic presses for the manufacture of sheet lead pipes, bars and window lead.	1482	28th May 1866	Henry Stuttle.
Improvements in weft forks and in tools employed in the manufacture thereof.	1506	30th May 1866	Hugh Schofield.
Machinery for cutting files (*Communicated by Aaron Chambers.*)	1507	30th May 1866	George Tomlinson Bousfield.
Certain improvements in the manufacture of "keys," "spanners," "wrenches," "cotters," "nuts" and other articles, and in the apparatus employed therefor	1515	31st May 1866	Edward Taylor Bellhouse. William John Dorning.
Improvements in the mode of and machinery for making hoes, trowels and other similar instruments. (*rolling.*)	1550	5th June 1866	Nathan Brand.
An improved means and apparatus for providing furrows in the surface of metals, applicable especially for cutting files and other purposes.	1596	12th June 1866	Pierre Hippolyte Limet.
An improvement in rolling bars for manufacturing nuts.	1648	19th June 1866	Edward Hammond Bental.
Manufacturing by the aid of a special arrangement of cylinders or rollers, a novel sort of bar or rod iron suitable for making horse shoe nails. (*Communicated by Joseph Jules Falatieu.*)	1780	5th July 1866	William Edward Gedge.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses.	1803	9th July 1866	William Baines.
Improvements in the means and apparatus employed in the manufacture of taper or conical and other forms of wrought iron and steel tubes, and in forming flanches thereon.	1868	18th July 1866	George Plant.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith.
Improvements in shaping and forging metals, and in the machinery or apparatus employed therein.	1903	21st July 1866	Robert Mitchell.
Shaping metals and other ductile materials	1926	25th July 1866	Jasper Henry Selwyn.
Improvements in the construction of revolver fire-arms and in apparatus employed in their manufacture, also in cartridges to be used therewith.	1959	28th July 1866	John Adams.
Improvements in hammers and in mechanism used therewith	1986	1st Aug. 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Forging*)—*continued.*			
A new and useful invention having reference to the manufacture of horse-shoes or various other articles.	1999	2nd Aug. 1866	Hazen Jay Batchelder.
Improvements in the manufacture of flat-linked chains, and in the machinery employed in riveting and swaging the same and other articles -	2012	4th Aug. 1866	William Hartcliffe junr. William Hartcliffe Lee.
Manufacture of coiled iron tubes or cylinders used in the construction of cannon.	2061	10th Aug. 1866	George Wightwick Rendel.
A new or improved direct acting lift or tilt hammer	2070	13th Aug. 1866	Robert Leigh.
Punching and rivetting machines - - -	2158	23rd Aug. 1866	Ralph Hart Tweddell.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Manufacture of rails for railways - - -	2214	28th Aug. 1866	George Hinton Bovill.
An improved solder or composition for joining certain metals or uniting fractures in certain metals, and for similar uses. (*Communicated by Charles Halot.*)	2252	1st Sept. 1866	Adolphe Lebaudy.
Manufacture of the handles of sad irons and other smoothing and tailors' and hatters' irons.	2313	8th Sept. 1866	John Silvester.
Improvements in connecting parts of machinery and structures liable to impulsive forces. (*steam hammers.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
An improved method of welding iron upon iron, steel upon steel, and iron upon steel.	2341	12th Sept. 1866	Bernard Lietar.
Drifting and rivetting machines - - -	2499	27th Sept. 1866	Theophilus Wood Bunning.
Improvements in the process of casting iron cylinders, or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together. (*for rolling metals.*)	2518	29th Sept. 1866	Jean Gueunier Lauriac.
An improved mode of forming collars on metallic axles and other articles. (*Communicated by William Allen.*)	2561	4th Oct. 1866	William Edward Newton.
An improved tilt hammer - - - - (*Communicated by Philippe Tisserand.*)	2583	8th Oct. 1866	William Edward Gedge.
Machinery for compressing, rounding or pointing wires or rods to form pins, needles or other articles of metal - - - -	2714	20th Oct. 1866	Orin Lewis Hopson. Heman Porter Brooks.
Manufacture of rails for railways - - - (*Communicated by Samuel L. Potter.*)	2735	23rd Oct. 1866	Alfred Vincent Newton.
Manufacture of metal tubes - - - -	2762	26th Oct. 1866	Philip Albert Munts.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes.	2792	29th Oct. 1866	Ralph Hart Tweddell.
Apparatus or machinery for bending chain links -	2834	1st Nov. 1866	Henry Richard John Denton.
An 'auxiliary smith's fire' - - -	2843	2nd Nov. 1866	William Frost. John Henry Leather. James Nelson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Forging*)—*continued.*			
Improvements in rolling metals and in the machinery or apparatus employed therein. (*Communicated by Hippolyte Ulysse Petin and Jean Marie Gaudet.*)	2874	6th Nov. 1866	John Henry Johnson.
Friction breaks and apparatus for giving motion to machinery. (*clutch for rolling mills.*)	2881	6th Nov. 1866	Robert David Napier.
Certain improvements in machinery or apparatus for rolling metals.	2895	7th Nov. 1866	Peter Kirk.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes - - - - - - -	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Improvements in the manufacture of tubes and other articles, and in the apparatus employed therein.	2965	14th Nov. 1866	Hesketh Hughes.
Electric telegraphs - - - - - - (*rolling the iron poles.*)	3038	19th Nov. 1866	Josiah Latimer Clark.
Improvements in the construction and manufacture of railway wheels called "disc wheels," formed from one piece or mass of iron or steel. (*Communicated by Jean Baptiste Helson.*)	3145	29th Nov. 1866	William Brookes.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - - - - -	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Improvements in armour plating or protecting vessels of war, forts and other like structures, and in the manufacture of the plates and material employed therein.	3249	10th Dec. 1866	Walter Chidiock Nangle.
Apparatus for bending bars and plates of metal -	3291	14th Dec. 1866	Thomas Berney.
Improvements in hammers and in mechanism used therewith - - - - - -	3297	15th Dec. 1866	Samuel Chatwood. John Sturgeon.
Improvements in welding steel to malleable iron and tempering the steel by one and the same operation, and in tempering steel after it has been welded to iron. (*Communicated by Asa R. Reynolds.*)	3304	15th Dec. 1866	William Edward Newton.
An improvement in the mode of constructing shovels and spades.	3315	17th Dec. 1866	George Nimmo.
Improvements in nails and in machinery for manufacturing the same. (*Communicated by Arlon Man Polsey.*)	3328	18th Dec. 1866	William Robert Lake.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
Machinery for shaping and forging metals into rivets, bolts, screw blanks and like articles.	3412	28th Dec. 1866	Francis Watkins.
See also "NAILS."			

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS—*continued.*			
IV.—Cutting, Planing, Punching, Boring and Riffing Metals.			
Improvements in the manufacture of augers and in the tools or instruments to be used in such manufacture. (*Communicated by Russell Jennings.*)	32	4th Jan. 1866	William Edward Newton.
An improved wrench and cutter - - -	68	9th Jan. 1866	William Dakin Grimshaw.
An improved nail and brad cutting machine -	74	10th Jan. 1866	John Sadler.
Differential screw apparatus - - - (*applicable to punches.*) (*Communicated by François Durand and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Connecting or fastening the ends of iron or other metal bands surrounding bales of cotton, wool and other dry goods. (*forming the holes.*) (*Communicated by Henry Fassman.*)	320	1st Feb. 1866	Henry Charles Lucy.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving. - - - (*punch or cutter.*)	417	10th Feb. 1866	John Binns. William Binns.
Apparatus for shaving and cutting metal bars and metal tubing - - - - -	506	17th Feb. 1866	John Wolstenholme. John Tomlinson Pendlebury.
Improvements in breech-loading fire-arms and in cartridges for the same. (*rifle grooving the bore.*) (*Communicated by Hiram Berdan.*)	529	20th Feb. 1866	William Edward Newton.
Improvements in drills and in chucks for holding and operating the same and similar articles. (*Communicated by Stephen Ambrose Marse.*)	535	21st Feb. 1866	William Robert Lake.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - - (*punching, piercing or perforating.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Holding devices for boring tools - - - (*Communicated by Cyrus Avery.*)	744	12th March 1866	Thomas Adam Mathieson.
Improvements in drill and other braces, which improvements are also applicable to drilling machines and other apparatus for boring holes.	764	14th March 1866	John Varley.
Means or apparatus employed in drilling and ornamenting metal, wood and other similar substances.	1045	13th April 1866	William John Cunningham.
Machines for cutting, rolling and shearing bars or beams of metal for making rivets and for other purposes.	1325	9th May 1866	James Fletcher.
Improvements in weft forks and in tools employed in the manufacture thereof.	1506	30th May 1866	Hugh Schofield.
Drilling machines - - - - - (*Communicated by Warren Lyon, David Van Gelder Isaacs, Alexander M'Andrew and Samuel Wann.*)	1574	7th June 1866	William Edward Newton.
Machinery for turning, shaping and cutting metal -	1677	23rd June 1866	Thomas Dunn.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Cutting*)—*continued.*			
Improved machinery for drilling iron and other metals, also for boring wood, for tapping nuts and screwing bolts.	1729	28th June 1866	Simeon Deacon.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith,
Drilling machines - - - - - - -	2087	15th Aug. 1866	Stephen Alley.
Punching and rivetting machines - - -	2158	23rd Aug. 1866	Ralph Hart Tweddell.
Machines for making eyelets - - - (*Communicated by Thomas Garrick.*)	2250	1st Sept. 1866	George Tomlinson Bousfield.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances - - - - -	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
Machinery or apparatus for cutting frets in metal or other substances. (*Communicated by Madame Henriette Delong.*)	2365	14th Sept. 1866	John Henry Johnson.
Tube cutters - - - - - -	2395	18th Sept. 1866	Thomas Parkes.
Certain improvements in machinery or apparatus for planing metals - - - -	2406	19th Sept. 1866	Elias Barlow. William Nathan Dack.
Improvements in tube and bar cutters, and in apparatus connected therewith - - -	2552	4th Oct. 1866	John Wolstenholme. Thomas Pendlebury.
Machinery for manufacturing screw nuts - - (*cutting up bar iron.*)	2876	6th Nov. 1866	Edward Hammond Bentall.
Machinery for cutting and heading nails - - (*Communicated by Jacob Russell, Henry Townsend M'Coun, James Lemuel Romer and Thomas Townsend Buckley.*)	2942	10th Nov. 1866	John Garrett Tongue.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes - - - - - -	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*or boring.*)	2975	13th Nov. 1866	William Walker Marston.
Multiple drilling machines - - -	2982	14th Nov. 1866	William Clapperton.
Machinery for drilling combs and hackles -	3087	23rd Nov. 1866	Thomas Richards Harding. Thomas Walter Harding.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - - - -	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Machinery for cutting, punching and shaping metals for screw nuts and like articles.	3410	28th Dec. 1866	Francis Watkins.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS—*continued.*			
V.—Plating and Coating Metallic Surfaces with Metal; Finishing and Ornamenting Metallic Surfaces.			
Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.	423	10th Feb. 1866	John Pinches.
An improved method of manufacturing name plates of metal, and in producing ornamental devices upon metal plates.	517	20th Feb. 1866	James Nall.
Iron safes and strong rooms - - - (*plating.*)	685	6th March 1866	John Chubb.
Carts for distributing water, liquid manure and other fluids over roads and lands - - (*galvanising with zinc.*)	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
Stamping on flatted or unflatted metals - -	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state - -	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Improvements in the mode of and machinery for making hoes, trowels and other similar instruments. (*plating blanks.*)	1550	5th June 1866	Nathan Brand.
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith. (*substance for polishing metals.*)	1568	7th June 1866	John Carrington Sellars.
Apparatus for generating steam or heating liquids (*galvanizing water tubes.*)	1684	25th June 1866	Edward Field. Francis Wise.
Busks of stays and corsets - - - (*tinning.*)	1771	4th July 1866	Robert Alfred Young.
Manufacture of tin and terne plates - -	1902	21st July 1866	John Saunders. Joseph Piper.
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Treating iron for the purpose of converting it into steel or hard metal, and for plating or coating and hardening and tempering iron and steel. (*Communicated by Elliot Savage.*)	1938	25th July 1866	William Edward Newton.
Deoxidation and precipitation - - - (*Communicated by Mathias Paraf-Javal.*)	1978	1st Aug. 1866	Alfred Paraf.
Coating and recovering metals from chlorides and other solutions of metals.	2095	15th Aug. 1866	James Webster.
Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials.	2431	21st Sept. 1866	James Clark.
Treating sheet-iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called 'galvanized iron,' and also for manufacturing such plate in imitation of Russia iron. (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METALS (*Plating*)—*continued.*			
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Coating plates or sheets of metal - - -	3060	21st Nov. 1866	Edmund Morewood.
Obtaining useful products from certain materials produced in the process of galvanising or coating iron with zinc.	3118	27th Nov. 1866	Charles Crockford.
Certain improvements in the construction of locks and keys.	3441	31st Dec. 1866	Herbert Allman.
METERS FOR GAS AND FLUIDS.			
Apparatus for drawing off and measuring liquids - (*see* "MEASURING LENGTH.")	93	11th Jan. 1866	Joseph Cook Angus. George Stuart.
Gas meters - - - - - - -	274	27th Jan. 1866	William Willmer Pocock.
Hydraulic machinery - - - - - (*for measuring water.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Means or apparatus for measuring liquids - -	372	7th Feb. 1866	William Richards.
Improvements in meters for measuring and registering the flow of liquids, part of which improvements is also applicable to regulating the flow of steam.	375	7th Feb. 1866	Joseph Lewis.
Apparatus for measuring and registering the flow of water or other liquids.	518	20th Feb. 1866	Ernest Marie Du Boys.
Water meters - - - - - -	520	20th Feb. 1866	Thomas Kennedy.
An improved construction of spirit meter - - (*Communicated by Edward Payne.*)	561	23rd Feb. 1866	John Fulleck Hearsey.
Gas-meter indexes - - - - - -	585	26th Feb. 1866	James Thomas.
Arrangement and construction of meters or apparatus for measuring water or other fluids -	733	10th March 1866	Walter Chrimes Myers. Edward Myers.
Apparatus for measuring liquids - - -	908	29th March 1866	John Parkes, the younger. James Parkes.
Engines worked by steam or other fluid - - (*water meter.*)	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Means and apparatus for reducing metallic oxides - (*Communicated by Jacob Reese.*)	1223	1st May 1866	Charles Denton Abel.
Valves used, as in the case of slide valves, for regulating the flow of steam, water and other fluids. (*for meters.*)	1230	1st May 1866	Joseph Lewis.
Dry gas-meters - - - - - -	1239	2nd May 1866	David Cohen.
Improvements in apparatus applicable as a rotary engine, pump and water meter.	1286	5th May 1866	Augustus Lea Bricknell.
Improvements in the construction of dry gas-meters, part of which improvements is also applicable to meters for measuring water and other liquids.	1382	15th May 1866	Walter Payton.
Improvements in gas regulators applicable to burners and meters.	1488	28th May 1866	David Duff.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
METERS—*continued.*			
An improved spirit meter (*Communicated by William Murphy.*)	1692	25th June 1866	William Edward Newton.
Pistons and cylinders (*for water-meters.*)	1711	27th June 1866	Thomas Kennedy junior. James Barr.
Wet gas-meters	2047	9th Aug. 1866	James Turner.
Improvements in hydraulic gas chandeliers, and in gas regulators applicable thereto and to other gas burners or meters	2357	13th Sept. 1866	George Henderson. David M^c^Neil.
Improvements in fluid meters, also applicable to pumps and water pressure engines	2434	21st Sept. 1866	John Mortimer Heppel.
Improvements in the construction of water-meters, which improvements are also applicable to the measuring of liquids generally.	2581	8th Oct. 1866	Abraham Ripley.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes.	2802	30th Oct. 1866	John Varley.
An improved apparatus for registering the speed of machinery or the distance travelled by vehicles. (*also the flow of water, air, gas, &c.*)	2979	14th Nov. 1866	Claude Marie Bathias.
MINING; BORING AND BLASTING ROCK; RAISING FROM MINES, GETTING COALS; DRAINING, LIGHTING AND VENTILATING MINES; SINKING WELLS.			
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description. (*raising materials from mines.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughlin.
Apparatus used in getting coal	94	11th Jan. 1866	Charles Bartholomew.
Blowing or blast engines (*for ventilating mines.*)	363	6th Feb. 1866	Robert Gatley.
Improvements in machinery or apparatus for cutting coal and other minerals, and in the means for driving or actuating the same.	477	15th Feb. 1866	Joseph Rothery.
Construction of pumps (*for mines.*)	539	21st Feb. 1866	Henry Spink Swift.
Engines and apparatus for obtaining motive-power, and for using the foul air in mines as fuel.	557	23rd Feb. 1866	James Parker.
Improvements in raising or lifting and forcing water and other liquids, and in the apparatus or mechanism employed therefor. (*for clearing mines.*)	630	1st March 1866	Hugh M^c^Phail.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MINING, &c.—*continued.*			
Machinery or apparatus for perforating rocks to facilitate the formation of tunnels, galleries of mines and for other similar purposes. (*Communicated by Theophilus Berrens.*)	655	3rd March 1866	James Stevenson.
Machinery for cutting coal - - -	703	8th March 1866	George Edmund Donisthorpe.
Machinery for mining and working coal, minerals, stone and other earthy matters - - -	807	19th March 1866	Edward Beacher. John Gillott.
Improved means or apparatus for cutting coals and other minerals.	832	21st March 1866	Samuel Dalby.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*purifying air in mines.*)	921	31st March 1866	James Davis.
Machinery for boring rocks - - - (*Partly communicated by Fritz Abegg.*)	974	5th April 1866	Samuel Richards.
Improvements in sinking tubes, cylinders or caissons, for the foundation of piers, lighthouses, quay walls, and similar structures, and for the sinking of mine shafts and wells.	995	7th April 1866	Thomas Scott.
Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (*for use in mines.*) (*Communicated by Louis Bataille.*)	1079	17th April 1866	Clinton Edgcumbe Brooman.
Machinery employed in cutting and getting coals and other minerals.	1091	18th April 1866	James Grafton Jones.
Improvements in getting coal and other minerals, and in machinery employed for that purpose.	1136	21st April 1866	George Edmund Donisthorpe.
Apparatus for getting or cutting minerals - -	1224	1st May 1866	John Nisbet.
Improved machinery for holeing, cutting, getting and drilling coal or other minerals.	1289	7th May 1866	Edward Fidler.
An improved explosive compound - - (*for blasting.*) (*Communicated by Wilhelm Fehleisen and Ernst Fehleisen.*)	1341	10th May 1866	Johann Heinrich August Bleckmann.
Improvements in elevating and forcing water and other fluids, and in the machinery or apparatus connected therewith. (*draining mines.*)	1346	10th May 1866	Julian Bernard.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.	1401	17th May 1866	Julian Bernard.
An improved combustible and inextinguishable compound - - - - - (*for making fusees for blasting rock.*)	1411	18th May 1866	James Sharp. Robert Smith.
An improved signal bell for registering on a dial plate all signals given by hammer blows or knocks from the pit bottom to the engine man or winder at the pit top, or from any other place to another where signals are or may be adapted for transmission by blows. (*for mines.*)	1512	31st May 1866	John Punshon.
Miner's safety lamps - - - - -	1610	13th June 1866	William Hatherton Hall. Joseph Cooke.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MINING, &c.—*continued.*			
Apparatus for excavating - - - (*for sinking pits.*)	1701	26th June 1866	John Milroy.
Machinery or apparatus for sinking shafts or pits, and driving tunnels and galleries.	1784	5th July 1866	John Dickenson Brunton.
Apparatus for compressing air by means of water - (*for mining purposes.*)	1837	13th July 1866	Charles Ferdinand Dietrich.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*for boring wells.*) (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Hoisting apparatus and cars for mining purposes - (*Communicated by George Williams.*)	2578	6th Oct. 1866	William Clark.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*for boring rock, &c.*) (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Coal mining machinery - - - -	2708	19th Oct. 1866	Charles Jones.
Improvements in the manufacture of safety fuzes, and in the machinery, apparatus or means employed therein. (*Communicated by William Robert Whitehorn.*)	2771	26th Oct. 1866	James Harebooth Gresham.
Machinery or apparatus to be used for excavating and mining.	2797	30th Oct. 1866	James Hunter.
Construction of steam-boilers - - - (*for mining purposes.*) (*Communicated by Robert Bailey.*)	2805	30th Oct. 1866	William Edward Newton.
Improvements in engines for boring rock and other mineral, and in frames or stands for boring engines.	2922	9th Nov. 1866	Frederick Bernard Dœring.
An improved apparatus for pumping or ventilating (*for mining operations.*) (*Communicated by Paschal Joseph Hognoul.*)	2927	10th Nov. 1866	Henri Adrien Bonneville.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes -	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Improvements in picks or mandrils such as are used for cutting coal and other minerals - -	2973	13th Nov. 1866	Freiderich Wilhelm Dähne. David Thomas.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.	3029	19th Nov. 1866	Julian Bernard.
Safety lamps - - - - - -	3045	20th Nov. 1866	Evan Thomas.
Machinery and apparatus to be used in cutting coal and other minerals.	3063	21st Nov. 1866	Peter Gledhill.
Machinery for drilling rocks - - - - (*Communicated by Charles Burleigh.*)	3065	22nd Nov. 1866	George Haseltine.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels. (*ventilating mines.*)	3139	29th Nov. 1866	Edward Hughes.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MINING, &c.—*continued.*			
Manufacture of blasting cartridges and fuses -	3301	15th Dec. 1866	Alexander Rollason.
Gunpowder for mining purposes - - -	3310	17th Dec. 1866	Gustav Adolph Neumeÿer.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces.	3373	22nd Dec. 1866	Joseph Sloper.
Machinery for applying hydraulic power to mining and other purposes - - - - -	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
For colliery signals, *see* "SIGNALS."			
MIXING, MASHING, STIRRING, AGITATING.			
Machinery or apparatus for the construction or making of moulds for casting in metals. (*mixing the sand.*)	56	8th Jan. 1866	Archibald Gibb.
The application and use of a certain material to be employed in admixture with india-rubber, oils, resins or bituminous matters, which combinations may be applied to various useful purposes.	871	24th March 1866	James Buckingham.
An improved apparatus for mashing malt or grain to be used in the processes of brewing and distilling.	905	28th March 1866	Thomas Ryder.
Apparatus for mixing concrete and other materials	1435	21st May 1866	Philip John Messent.
Manufacture of and apparatus for the treatment of worts.	1560	6th June 1866	William Lawrence.
Improved apparatus for treating corn and other materials. (*mixing.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Machinery or apparatus for mixing and repacking tea; also applicable to the mixing of other granular substances.	1861	17th July 1866	William Thompson.
Construction of apparatus for mixing, pressing and moulding coal and other substances, for the formation of artificial fuel, and dividing the same into blocks, such apparatus being also applicable to other analogous operations.	1871	18th July 1866	David Barker.
Certain improvements in machinery or apparatus for amalgamating, purifying, cooling and bleaching lard or other similar materials. (*agitating.*)	2003	3rd Aug. 1866	Nicholas Kilvert.
An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood, straw and other fibrous material, for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (*Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Colton.*)	2156	22nd Aug. 1866	George Haseltine.
Churns - - - - - - - (*propellors or agitators.*)	2500	27th Sept. 1866	George Slater.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MIXING, &c.—*continued.*			
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof, and for the prevention of explosions. (*apparatus for agitating.*) (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Means for operating on air or aëriform fluids by hydrocarbons, for purposes of illumination.	2873	6th Nov. 1866	Nathaniel Fortescue Taylor.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*stirring apparatus.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
An improved process for combining tungsten with cast iron, by conglomerating reduced wolfram.	3066	22nd Nov. 1866	Pierre René Marie Le Guen.
Mixing apparatus for mixing mortar and similar materials.	3450	31st Dec. 1866	Louis Gonzague Speyser.
MOTIVE-POWER MACHINES; OBTAINING MOTIVE-POWER.			
I.—Air, Gas and Wind Engines and Mills; Pneumatic Motive-power.			
Means and apparatus for producing and employing motive-power.	27	4th Jan. 1866	Thomas Telford Macneill.
Certain improvements in the method of obtaining motive-power and in apparatus connected therewith.	62	9th Jan. 1866	Edmund Perré.
Means and apparatus for obtaining and applying motive-power. (*Communicated by Alexandre Bobrownicki.*)	181	19th Jan. 1866	William Clark.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Obtaining motive-power either giving or not giving light. (*by hot air.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Gas and air engines - - - - (*Communicated by Eugen Langen and Auguste Nicol Otto.*)	434	12th Feb. 1866	Charles Denton Abel.
Manufacture of gas suitable to be used for illumination or for obtaining heat or motive-power. (*Communicated by Guillaume Lemaire Malherbe.*)	444	13th Feb. 1866	Montague Richard Leverson.
An improved mode of and apparatus for working air-engines. (*Communicated by John Bowman Atwater.*)	684	6th March 1866	Alfred Vincent Newton.
Apparatus for obtaining motive-power - -	804	17th March 18	Geminiano Zanni.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Engines for obtaining rotary motion by means of steam, gas or other fluids. (*Communicated by Marie Joseph Denis Farcot and Joseph Perrigault.*)	1206	28th April 1866	Henry Edward Newton.
Valves for steam and other engines - -	1304	8th May 1866	Mathew Hutton Atkinson.
Construction of rotary engines to be worked by steam or other power.	1385	15th May 1866	Bryce Grey Nichol.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.	1401	17th May 1866	Julian Bernard.
A new method of obtaining motive-power, and the apparatus employed therein.	1422	19th May 1866	Matthew Semple.
Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
The application of certain spirituous compounds for the production of motive-power. (*see* "STEAM-BOILERS.")	1714	27th June 1866	John Jordan.
Apparatus for compressing air by means of water - (*as a motive-power.*)	1837	13th July 1866	Charles Ferdinand Dietrich.
Motive-power engines. - - - - -	1848	14th July 1866	William Justice.
A new or improved mode of constructing a motive-power wheel, whereby to obtain permanent motion, by the application of compressed air or any other elastic fluid - - - - -	1899	21st July 1866	Anthony Bernhard Baron Von Rathen. George Henry Ellis.
Motive-power engines - - - - -	1927	25th July 1866	Henry Prince.
Motive-power engines - - - - -	2011	4th Aug. 1866	Caleb Pratt. Josiah Pratt.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, timepieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
A new or improved compressed air-engine, combined with a new mode and appropriate construction of the engine for preventing the escape of air.	2377	15th Sept. 1866	Anthony Bernhard Baron Von Rathen.
Atmospheric engines - - - - - (*Communicated by David Dick.*)	2590	8th Oct. 1866	William Edward Newton.
Heated air-engines - - - - -	2633	11th Oct. 1866	Henry Messer.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places.	2744	24th Oct. 1866	Joseph Watts.
An improved vacuum air-engine - - - (*Communicated by John Robertson Cameron.*)	2824	31st Oct. 1866	William Edward Newton.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water, and for other mining purposes.	3029	19th Nov. 1866	Julian Bernard.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Machinery or apparatus for obtaining motive-power	3125	27th Nov. 1866	Richard George.
Rotary engines - - - - - - (*Communicated by Auguste Gerin.*)	3207	5th Dec. 1866	William Clark.
Arrangements and apparatus for obtaining motive-power.	3363	21st Dec. 1866	James Anderson.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery, and for ventilating mines, buildings, ships and other spaces.	3373	22nd Dec. 1866	Joseph Sloper.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting, heating, and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.
See also "GOVERNORS."			
II.—Steam-Engines. (*Stationary, Locomotive and Marine.*)			
Certain movable parts of stationary and marine engines.	44	5th Jan. 1866	William Winter.
Lubricating certain frictional surfaces in steam-engines.	167	18th Jan. 1866	Henry Ashworth.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.
Means and apparatus for obtaining and applying motive-power. (*Communicated by Alexandre Bobrownicki.*)	181	19th Jan. 1866	William Clark.
Hydraulic machinery - - - - (*applicable to steam-engines.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Steam-engines - - - - - -	281	29th Jan. 1866	John Orr.
Locomotive engines designed for ascending steep inclines.	284	29th Jan. 1866	Alexander Chaplin.
Obtaining motive-power either giving or not giving light. (*by steam.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Motive-power - - - - - -	359	6th Feb. 1866	Vincent Rastouin.
Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (*Communicated by Charles Achille Tranchant.*)	371	7th Feb. 1866	Charles Denton Abel.
An improved rotary steam-engine - - -	384	8th Feb. 1866	Henry Deymann.
Steam-engines - - - - - -	425	10th Feb. 1866	Barnard William Farey.
Improvements in and applicable to slide valves, pistons and glands - - - -	479	15th Feb. 1866	Thomas Adams. George John Parson.
Valves for regulating the pressure of steam and other fluids.	504	17th Feb. 1866	John Fletcher.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein. (*for obtaining motive-power.*)	513	17th Feb. 1866	Joshua Kidd.
Valves	523	20th Feb. 1866	Thomas Williamson. Edwin Patrick Marren.
Engines and apparatus for obtaining motive-power, and for using the foul air in mines as fuel.	557	23rd Feb. 1866	James Parker.
Steam-engines	563	23rd Feb. 1866	Thomas Jones Smith.
Arranging and working steam-engine valves (*Communicated by Messrs Hughes and Phillips.*)	566	23rd Feb. 1866	Peter Kerr.
An even balanced tubular slide valve for steam or other engines.	607	27th Feb. 1866	Joseph Trent.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required (*piston rods.*)	647	3rd March 1866	William Deacon. John Bagnall Johnson.
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*Communicated by Robert Creuzbaur.*)	657	3rd March 1866	John Bischoff.
Construction of portable steam-engines (*Communicated by Isidore Nillus the younger.*)	666	5th March 1866	George Davies.
Rotary steam-engines	696	7th March 1866	Aaron Charles Baldwin.
Steam-engines	708	8th March 1866	John Bell Muschamp. William Card.
Certain improvements in metallic pistons	716	9th March 1866	Thomas Pattison. John Booth.
Improvements in generating heat, and in applying it for the production of motive-power and steam, also in apparatus employed therein.	738	10th March 1866	Matthew Piers Watt Boulton.
Improvements relating to the boilers and engines of steam ships.	759	14th March 1866	John Elder.
An improved rotary steam-engine	778	15th March 1866	William Goodwin.
Means of and apparatus for obtaining motive-power from the compression and expansion of vapors.	819	20th March 1866	John Ramsbottom.
Rotary steam-engines (*Communicated by Andreas Herlöv.*)	839	21st March 1866	William Edward Newton.
Steam-engines and boilers	861	23rd March 1866	William Louis Winans. Thomas Winans.
Slide valves and reversing gear of engines worked by steam, air or gases.	1038	12th April 1866	William Bond.
Engines for obtaining motive-power	1047	13th April 1866	Samuel Chatwood. John Sturgeon.
Distributing valves for steam and other engines	1054	13th April 1866	William Hawdon. William March Hawdon. Henry Heather.
Valves for steam and other fluids	1113	20th April 1866	Charles James Waddell. Hugh Cameron. Bell Muir.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Engines worked by steam or other fluid	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Improvements in or applicable to steam-engines	1161	25th April 1866	James Stead Crosland.
Engines for obtaining rotary motion by means of steam, gas or other fluids. (*Communicated by Marie Joseph Denis Farcot and Joseph Perrigault.*)	1206	28th April 1866	Henry Edward Newton.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Valves used as in the case of slide valves for regulating the flow of steam, water and other fluids.	1230	1st May 1866	Joseph Lewis.
Improvements in apparatus applicable as a rotary engine, pump and water-meter.	1286	5th May 1866	Augustus Lea Bricknell.
Expansion gear of steam-engines	1293	7th May 1866	John Milner.
Valves for steam and other engines	1304	8th May 1866	Mathew Hutton Atkinson.
Construction of rotary engines to be worked by steam or other power.	1385	15th May 1866	Bryce Grey Nichol.
An improved rotary engine to be used for pumping fluids or gases, or as a motive-power.	1402	17th May 1866	John Beale.
Condensing apparatus (*Communicated by John Turnbull.*)	1408	17th May 1866	Philip Vandirbyl.
Marine steam-engines and surface condensers	1433	21st May 1866	Alexander Crichton.
Rotary steam-engines (*Communicated by Matthias Wharton Baldwin.*)	1441	22nd May 1866	Alfred Vincent Newton.
Improvements in motive-power engines and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Rotary steam and hydraulic engines	1461	25th May 1866	Wilhelm Heinrich Christian Voss.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same	1462	25th May 1866	William Gibson. Edward Ellis.
Steam-engines	1530	1st June 1866	John Yule.
Locomotive engines for common roads	1534	1st June 1866	William Burrows. Joshua Burrows.
Steam-engines	1601	13th June 1866	George Dominicus Kittoe.
Rotary and reciprocating engines	1647	19th June 1866	Thomas Blatch.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
A new or improved rotary engine	1669	22nd June 1866	George Turton.
An improved construction of rotary engine (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets	1700	26th June 1866	William Buckley. Levi Smith.
Locomotive traction engines	1728	28th June 1866	Daniel Kinnear Clark, C.E.
Locomotive and traction engines	1757	2nd July 1866	Charles James Appleby.
Apparatus for obtaining motive-power by means of steam. (*Communicated by Jule Claude Louis Charnoz.*)	1767	3rd July 1866	William Adolph.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Locomotive engine and tenders - - - (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
Marine steam-engines - - - - -	1802	9th July 1866	John Elder.
Arranging and working steam-engine valves - (*Communicated by John Morris Phillips and Joseph Hewes.*)	1808	10th July 1866	Stewart Clark.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	1822	11th July 1866	Robert William Fraser.
Steam-engines - - - - - -	1824	11th July 1866	William Naylor.
Machinery or apparatus for facilitating the adjustment and testing the working parts of locomotive engines - - - - - -	1830	12th July 1866	Joseph Ward. Joseph Smales.
Improvements in locomotive engines for enabling them to ascend steep inclines.	1840	13th July 1866	Alexander Woodlands Makinson.
Motive-power engines - - - - -	1848	14th July 1866	William Justice.
Machinery or apparatus for obtaining and applying motive-power.	1851	14th July 1866	Jesse Ingamells.
Improvements in the method of using and treating steam for purposes of obtaining motive-power, and in apparatus connected therewith.	1909	23rd July 1866	John Ramsbottom.
Steam slide valves for locomotive, marine and general steam-engines, and water valves.	1939	26th July 1866	William Edward Kochs.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages.	1957	28th July 1866	John Phillips-Smith.
Rotary engines - - - - - - (*Communicated by Truman Merriam and James Cushing.*)	1958	28th July 1866	William Clark.
Construction of rotary steam-engines - -	2048	9th Aug. 1866	George Bell Harkes.
Steam-engines - - - - - -	2127	18th Aug. 1866	John Varley.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.
Certain improvements in metallic pistons - -	2178	24th Aug. 1866	John Booth.
Improvements in railways and in engines for use thereon.	2189	25th Aug. 1866	William Dunn Gainsford.
Steam-engines - - - - - - (*Communicated by John Franklin Allen.*)	2199	25th Aug. 1866	Charles Talbot Porter.
Apparatus for regulating the flow of steam into steam-engines, by what are commonly called expansion cut off valves.	2207	27th Aug. 1866	James Farmer.
Improvements in valves for pumps, said improvements being also applicable to steam valves -	2248	31st Aug. 1866	Henry George Scott. Nathan Hallowell.
An improved rotary steam-engine - - - (*Communicated by Messieurs Emile Sellier and Regis Fidèle Hermant.*)	2270	4th Sept. 1866	George White.
Slide valves for steam-engines - - - (*Communicated by William Bowman Robinson and Zoheth Sherman Durfee.*)	2296	7th Sept. 1866	Charles Denton Abel.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances - - - - - (*for locomotive engines.*)	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
Certain improvements in metallic pistons - -	2366	14th Sept. 1866	Alexander Oldham.
Certain improvements in steam-engines - -	2405	19th Sept. 1866	Elias Barlow. William Nathan Dack.
Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (*Communicated by John Benjamin Root.*)	2466	25th Sept. 1866	Alfred Vincent Newton.
Apparatus for employing the motive-power of jets of fluid. (*steam.*)	2489	26th Sept. 1866	Matthew Piers Watt Boulton.
Steam-engines - - - - - -	2515	29th Sept. 1866	David Joy.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*rods of steam-engines.*)	2522	29th Sept. 1866	Joseph Whitworth.
Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery.	2566	5th Oct. 1866	John Cole Chapman.
Construction of certain parts of oscillating steam-engines.	2574	6th Oct. 1866	Simeon Deacon.
Steam-engines - - - - - - (*Communicated by Alexandre Damas Marye.*)	2591	8th Oct. 1866	William Edward Newton.
Improvements in constructing ships or vessels propelled by twin propellers, and in steam-engines for giving motion to the same.	2608	9th Oct. 1866	William Dudgeon.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
Metallic packings for piston rods and other purposes. (*Communicated by Ralph Ogden.*)	2741	24th Oct. 1866	John Ogden.
Lubricators - - - - - - (*for steam-engine cylinders.*)	2763	26th Oct. 1866	John Storer.
Apparatus for employing the motive-power of jets of fluid. (*jets of steam.*)	2809	30th Oct. 1866	Matthew Piers Watt Boulton.
Valves for engines worked by steam or other fluid -	2884	7th Nov. 1866	William Bracewell. William Pickup. Benjamin Lund.
Improvements in slide valves and governors of steam and other engines, and in apparatus connected therewith.	2902	7th Nov. 1866	Edmund Samuel Hindley.
An improved steam-engine - - - (*Communicated by Mr Ernesto Ansaldi.*)	2934	10th Nov. 1866	George White.
An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (*Communicated by Urbain André Chauveau and Henri Marie Joseph Le Nepvou de Carfort.*)	2971	13th Nov. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Improvements in locomotive engines and their permanent ways, applicable for steep gradients and alpine locomotion.	2986	14th Nov. 1866	Thomas Page.
Construction of steam-engines - - -	2994	15th Nov. 1866	James Erskine.
An improved steam-engine - - -	3016	17th Nov. 1866	Julien Bolvin.
Slide valves - - - - - -	3017	17th Nov. 1866	Charles William Dixon.
Steam-engines and propellers for propelling vessels	3032	19th Nov. 1866	Cortland Herbert Simpson.
Apparatus for regulating and controlling the pressure and flow of fluids.	3048	20th Nov. 1866	John Robertson.
Machinery or apparatus for obtaining motive-power	3125	27th Nov. 1866	Richard George.
Improvements in and connected with steam-engines	3143	29th Nov. 1866	Joshua Field.
Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids -	3206	5th Dec. 1866	James Barwick. Samuel Tindall.
Rotary engines - - - - - - (*Communicated by Auguste Geris.*)	3207	5th Dec. 1866	William Clark.
An improved construction of steam motor - - (*Communicated by Samuel Harris.*)	3289	14th Dec. 1866	Alfred Vincent Newton.
Locomotive and marine engines - - -	3406	28th Dec. 1866	Alexander Woodlands Makinson.
Improvements in the method of effecting the cut off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (*Communicated by George Herman Babcock and Stephen Wilcox, Jun'.*)	3452	31st Dec. 1866	George Tomlinson Bousfield.
See also "GAUGES." *See also* "GOVERNORS."			
III.—Waterwheels and Engines; Hydraulic Motive-power.			
Hydraulic machinery - - - - (*waterwheels.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Water-wheels - - - - - -	1099	19th April 1866	Ebenezer Tuttle.
Engines worked by steam or other fluid - -	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Valves for steam and other engines - -	1304	8th May 1866	Mathew Hutton Atkinson.
Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Rotary steam and hydraulic engines - -	1461	25th May 1866	Wilhelm Heinrich Christian Voss.
An improved construction of rotary engine - (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Pistons and cylinders (*for hydraulic engines.*)	1711	27th June 1866	Thomas Kennedy jun^{r}. James Barr.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	1822	11th July 1866	Robert William Fraser.
Motive-power engines	1848	14th July 1866	William Justice.
Steam slide valves for locomotive, marine and general steam-engines, and water valves.	1939	26th July 1866	William Edward Kochs.
Water-power engines (*Communicated by William Lonsdale and William Peete.*)	2306	8th Sept. 1866	Edward Thomas Hughes.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
Improvements in fluid meters, also applicable to pumps and water pressure engines.	2434	21st Sept. 1866	John Mortimer Heppel.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Improvements in machinery or apparatus for raising or elevating sewage water and other liquid matters, also applicable as a means of affording motive-power from water.	2675	16th Oct. 1866	Thomas Woodward.
Machinery for applying hydraulic power to mining and other purposes	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
Hydrostatic rotatory motive-power engines	3431	29th Dec. 1866	Burrowes Willcocks Arthur Sleigh.
See also "GOVERNORS."			
XV.—Electro-Magnetic Engines; Electro Motive-power.			
Electro-magnetic engines for obtaining and applying motive-power.	311	31st Jan. 1866	William Darlow.
Magnetic engines	726	9th March 1866	Lieut^{t}-Colonel James Baker.
Electro-magnetic power engines (*Communicated by William Henry Read.*)	931	31st March 1866	William Read.
Improvements in galvanic batteries, and in the modes of applying the same to electro-motive power and other engines.	947	3rd April 1866	Charles Frederic Carlier.
Engines for obtaining motive-power	1047	13th April 1866	Samuel Chatwood. John Sturgeon.
Thermo-electro magnetic batteries and engines	1718	27th June 1866	Lieutenant-Colonel James Baker.
Magnetic engines	3039	19th Nov. 1866	Lieutenant-Colonel James Baker.
Machinery or apparatus for obtaining motive-power.	3125	27th Nov. 1866	Richard George.
Electro-magnetic and magneto-electric machines	3209	6th Dec. 1866	Henry Wilde.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOTIVE-POWER, &c.—*continued.*			
Electro-magnetic apparatus for obtaining motive-power. (*Communicated by Eloi Poitevin.*)	3224	6th Dec. 1866	William Clark.
Thermo-electric and magnetic apparatus - -	3351	20th Dec. 1866	Lieut'-Colonel James Baker.
V.—Mechanical Motive-power, Horse-power.			
Mode of producing mechanical motion - - (*Communicated by Henry Smith.*)	220	23rd Jan. 1866	William Brookes.
New or improved mechanism for obtaining motive-power, particularly applicable for the self winding of clocks, time-pieces and other machinery requiring winding.	752	13th March 1866	Fredrich Gustav Adolph Horstmann.
A new motive-power engine - - - -	1946	26th July 1866	Thomas Adams.
Mechanism for obtaining and applying motive-power.	2030	7th Aug. 1866	Geminiano Zanni.
Obtaining motive-power - - - - - (*Communicated by Jean Baptiste Dubreuil and Camille Bernard.*)	2137	20th Aug. 1866	John Henry Johnson.
Improvements in obtaining motive-power and in the apparatus employed therefor.	2164	23rd Aug. 1866	Aristide Gerard.
An improved means for producing motive-power and the machinery or apparatus employed therefor.	2506	28th Sept. 1866	John Stuart Johnstone.
Apparatus for applying and regulating motive-power. (*Communicated by Joseph de Susini.*)	3173	3rd Dec. 1866	William Clark.
Improved locomotive machinery or apparatus working without the aid of steam. (*Communicated by Auguste Chenille.*)	3344	20th Dec. 1866	William Edward Gedge.
MOULDINGS AND ARCHITECTURAL ORNAMENTS.			
Making building bricks impervious to water or waterproof. (*for ornamenting fronts of buildings.*)	40	5th Jan. 1866	Elias Taylor.
Machinery for laying veneers on to surfaces - (*on to mouldings.*)	419	10th Feb. 1866	Henry Charles Clifton.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*plastic ornaments.*)	580	24th Feb. 1866	William Welch.
Machinery or apparatus for laying veneers on to mouldings and other surfaces.	809	19th March 1866	James Chambers.
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances into bricks, tiles, pipes or other useful or ornamental articles. - - - - (*ornamental mouldings.*)	1057	14th April 1866	Charles Henry Murrey. Mathew Jennings.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MOULDINGS, &c.—*continued.*			
Machinery for veneering mouldings or other surfaces.	1152	24th April 1866	Robert Thompson.
An improved method of and apparatus for preparing and fluting picture and other frames and mouldings - - - - - - (*Communicated by Guilliaminus Pohlmann and John Dalk.*)	1407	18th May 1866	Richard Gesell. Alfred Lea.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for decorating buildings.*)	1898	21st July 1866	Edward Tomlinson.
Apparatus for cutting, grinding and finishing marble and other similar materials. (*for mouldings.*) (*Communicated by James W. Maloy.*)	2092	15th Aug. 1866	William Brookes.
Machinery and tools for cutting slate, stone, marble and other minerals - - - - - (*producing moulded surfaces.*)	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
Machinery or apparatus for working stone, or cutting and working mouldings thereon.	2238	30th Aug. 1866	Thomas Gall.
A new or improved composition to be employed in architectural mouldings, and for other useful and decorative purposes.	2320	10th Sept. 1866	Charles Bathoe.
An improved process for producing pictures, ornamental designs, letters and other characters or figures on and in marble and other calcareous stones. (*ornamenting buildings.*) (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes -	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Producing printing surfaces and carvings from moulds obtained by the aid of photography.	3393	24th Dec. 1866	Robert Howe Ashton.
MUSICAL INSTRUMENTS AND NOTATION; TURNING OVER LEAVES OF MUSIC, MUSIC STOOLS, DIGITORIUMS.			
Mode of producing mechanical motion - - (*for melodions.*) (*Communicated by Henry Smith.*)	220	23rd Jan. 1866	William Brookes.
Pianofortes - - - - - -	248	25th Jan. 1866	Henry Cooper. Thomas Dutfield. Alexander Gibson.
Improvements in augmenting musical sounds and in apparatus connected therewith.	852	22nd March 1866	John Macintosh.
An improved fly for moderating or regulating the movements of wheelwork. (*musical snuff-boxes.*)	870	24th March 1866	Philipp Stieffel.
Apparatus for turning over the leaves of music -	900	27th March 1866	William Dixon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Musical Instruments, &c.—*continued.*			
An improved double action piano-forte - - (*Communicated by John Joseph Bender, Henry Joseph Bang and George Müller.*)	950	3rd April 1866	George Haseltine.
Pianofortes - - - - -	977	5th April 1866	Benjamin Johnson.
Construction of harmoniums - - -	1144	23rd April 1866	Henry Thomas Wedlake.
Construction of piano-fortes - - -	1154	24th April 1866	Samuel Thompson.
Percussive musical instruments - - - (*Communicated by Victor Mustel.*)	1220	30th April 1866	John Henry Johnson.
Certain improvements in mechanism or apparatus for turning over leaves either in a folded, stitched or bound state - - -	1336	10th May 1866	George Ashworth. Elijah Ashworth.
Improvements in the construction of sound-boards and in the governing apparatus of the bellows for organs, harmoniums and other similar wind instruments.	1476	28th May 1866	George Green.
Mode of and means for regulating and registering the tension of pianoforte strings. (*Communicated by Levi Lincoln Tower.*)	1494	29th May 1866	George Haseltine.
A convertible piano and music stool - - (*Communicated by Charles Hess.*)	1806	10th July 1866	John Millward.
Pianofortes - - - - -	1883	19th July 1866	Alfred Nicholson Wornum.
Musical instruments and notation - - (*Communicated by Carl Friedrick Zimmermann and John H. Harjes.*)	2054	9th Aug. 1866	William Clark.
Violins, violas, violoncellos and guitars - -	2071	13th Aug 1866	Henry Bell.
Improvements in organs, pianofortes and melodeons, which improvements are also applicable to other musical instruments having or employing key boards. (*Communicated by George Byron Kirkham.*)	2181	24th Aug. 1866	William Edward Newton.
Pianofortes - - - - -	2276	4th Sept. 1866	Enoch Farr. Isaac Gregory.
Construction of pianofortes - - -	2335	11th Sept. 1866	Thomas Christopher Lewis.
Cornets and other similar musical instruments - (*Communicated by the Schreiber Cornet Manufacturing Company (Incorporated).*)	2468	25th Sept. 1866	William Edward Newton.
Manufacture of pianofortes - - -	2488	26th Sept. 1866	George Henry Brockbank.
Improvements in the machinery of chimes, applicable also to organs - - - -	2516	29th Sept. 1866	Daniel Imhof.
Pianofortes - - - - -	2588	8th Oct. 1866	Benjamin Collins Newell.
Construction of organs - - - -	2793	29th Oct. 1866	Edouard Alexandre.
Pianofortes - - - - -	2963	13th Nov. 1866	Thomas Molineux.
Improved digitorium (a small instrument to strengthen the wrists and fingers, and in connection with pianoforte, organ and harmonium playing.)	3076	23rd Nov. 1866	Myer Marks.
Mode of and means for regulating and registering the tension of pianoforte strings. (*Communicated by Levi Lincoln Tower.*)	3134	28th Nov. 1866	George Haseltine.
An improved apparatus for the automatical performance of music on pianos, organs and other keyed instruments of like description. (*Communicated by Juan Amann.*)	3169	3rd Dec. 1866	Marc Antoine François Mennons.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
MUSICAL INSTRUMENTS, &c.—*continued.*			
Pianofortes and harmoniums - - -	3172	3rd Dec. 1866	Edward McLean.
The musical instrument designated the flute -	3208	5th Dec. 1866	Richard Carte.
Construction of pianofortes - - -	3288	14th Dec. 1866	Henry Brinsmead.
NAILS, SPIKES, BOLTS, RIVETS, SCREWS, NUTS, WASHERS AND DIES; ANGLE IRON, T IRON, BRACKETS.			
Fastenings for the permanent way of railways -	12	2nd Jan. 1866	Peter Schuyler Bruff.
An improved nail and brad cutting machine -	74	10th Jan. 1866	John Sadler.
Machinery for the manufacture of nails and spikes	146	16th Jan. 1866	George Mellor.
Manufacture of wrought iron tubes applicable to different purposes. (*nuts.*) (*Communicated by Cadet Pierre Dubuisson.*)	305	31st Jan. 1866	Henri Adrien Bonneville.
Improvements in the manufacture of horse nails and in apparatus employed therein.	426	10th Feb. 1866	John Huggett.
Improvements in screw-rivets for boot-pegs and screw nails for various purposes, and in machinery for the manufacture of screw rivets and screw nails, a part of which improvements in machinery may also be applied to other purposes.	623	1st March 1866	Alfred Christmas Andrews.
An improved spike - - - - (*Communicated by Lewis Alexander Osborn.*)	631	1st March 1866	William Robert Lake.
Machinery for making bolts, rivets, spikes and other similar articles. (*Communicated by Lewis Alexander Osborn.*)	680	6th March 1866	William Robert Lake.
Bolts to be used in the building or construction of ships or vessels.	734	10th March 1866	William Simons.
An improved apparatus for paring, burnishing, polishing or otherwise finishing articles manufactured of leather. (*levelling heads of rivets.*)	746	12th March 1866	Charles Linford.
Manufacture of metal bolts and rods for ship building and other purposes.	879	24th March 1866	William Boggett.
A new wheel pinion for riggers driving operators - (*for cutting screws.*)	1125	20th April 1866	Frederick Ruppert.
Improvements in screw cutting and threading machines, and in the construction of screw nails and spikes. (*Communicated by John Howard.*)	1219	30th April 1866	Charles Douglas Fox.
Machines for cutting, rolling and shearing bars or beams of metal for making rivets and for other purposes.	1325	9th May 1866	James Fletcher.
Certain improvements in the manufacture of 'keys,' 'spanners,' 'wrenches,' 'cotters,' 'nuts' and other articles, and in the apparatus employed therefor - - - -	1515	31st May 1866	Edward Taylor Bellhouse. William John Dorning.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
NAILS, &c.—*continued.*			
Improvements in or applicable to machinery or apparatus for spinning worsted or other fibrous substances, known as cap-frames - - (*glass washers.*)	1553	5th June 1866	James Marsland Tankard. John Cockcroft.
An improved means and apparatus for providing furrows in the surface of metals, applicable especially for cutting files and other purposes. (*making screws.*)	1596	12th June 1866	Pierre Hippolyte Limet.
Manufacture of screw nuts and bolts - -	1644	19th June 1866	Felix Benjamin Lucas.
An improvement in rolling bars for manufacturing nuts.	1648	19th June 1866	Edward Hammond Bentall.
An improvement in wood screws - - - (*Communicated by Henry Titus.*)	1689	25th June 1866	Clinton Edgcumbe Brooman.
Improved machinery for drilling iron and other metals, also for boring wood, for tapping nuts and screwing bolts.	1729	28th June 1866	Simeon Deacon.
Combining india-rubber or compounds thereof with metallic substances, for the manufacture of valves and other uses. (*for washers.*)	1740	29th June 1866	Henry Griffin.
Brackets - - - - - - -	1743	30th June 1866	Manuel Leopold Jonas Lavater.
Certain improvements in taps and dies for tapping and cutting screws, and machinery to be employed in effecting the same.	1765	3rd July 1866	William Adkins.
Manufacturing by the aid of a special arrangement of cylinders or rollers, a novel sort of bar or rod iron suitable for making horse shoe nails. (*Communicated by Joseph Jules Falatieu.*)	1780	5th July 1866	William Edward Gedge.
Improvements in screw-bolts and in the apparatus employed in manufacturing the same. (*Communicated by William Judson Clark.*)	1816	11th July 1866	George Haseltine.
Machinery for the manufacture of nails - -	1894	21st July 1866	Thomas Holden Lucas.
Machinery for the manufacture of bolts and spikes and other similar articles.	1900	21st July 1866	Moses Bayliss.
An improved fastening intended to replace the ordinary screws and nuts in bedsteads and articles of furniture generally. (*Communicated by Pierre Armand Protard.*)	1973	31st July 1866	William Edward Gedge.
Improvements in the permanent way of railways and in screw bolts for the same, which latter are also applicable to other purposes.	2019	6th Aug. 1866	Perceval Moses Parsons.
Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor - - - -	2060	10th Aug. 1866	Matthew Andrew Muir. James M'Ilwham.
Machinery for making nails - - - (*Communicated by The Excelsior Nail Company.*)	2144	21st Aug. 1866	William Edward Newton.
Improvements in the connecting parts of machinery and structures liable to impulsive forces.	2334	11th Sept. 1866	Frederick Arthur Paget.
Machinery for turning or cutting and polishing screw nuts and other articles.	2392	18th Sept. 1866	John Thompson.
Bolts and washers - - - - -	2524	1st Oct. 1866	James Chalmers.
An improved bolt and rivet and nut making machine.	2636	12th Oct. 1866	Henry John Cooke.
An improved manufacture of trenail - -	2651	13th Oct. 1866	Thomas Greenwood.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
NAILS, &c.—*continued.*			
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins.	2660	15th Oct. 1866	John Giles.
Improved pins, nails or tacks, the application of the same to certain purposes, and an apparatus to be employed in inserting the same, when fixed to caps or capsules, into corks. (*Communicated by Victor Palyart.*)	2706	19th Oct. 1866	Clinton Edgcumbe Brooman.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes. (*angle irons.*)	2792	29th Oct. 1866	Ralph Hart Tweddell.
Treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called "galvanized iron," and also for manufacturing such plate in imitation of Russia iron. (*or nails and screws.*) (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.
Fastenings and backing for armour plates - - (*bolts of wire rope.*) (*Communicated by John Gregory.*)	2821	31st Oct. 1866	Henry Headley Williams.
Securing or fastening screw bolts and nuts when tightened up.	2826	31st Oct. 1866	John Patterson.
Improvements in rolling metals and in the machinery or apparatus employed therein. (T *and* U *bars.*) (*Communicated by Hippolyte Ulysse Petin and Jean Marie Gaudet.*)	2874	6th Nov. 1866	John Henry Johnson.
Machinery for manufacturing screw nuts - -	2876	6th Nov. 1866	Edward Hammond Bentall.
Machinery for cutting and heading nails - - (*Communicated by Jacob Russell, Henry Townsend M'Coun, James Lemuel Romer and Thomas Townsend Buckley.*)	2942	10th Nov. 1866	John Garrett Tongue.
Nails or similar fastenings - - - -	2969	13th Nov. 1866	Augustus Scholey.
Improved machinery for manufacturing spikes and rivets. (*Communicated by John Oliver Reilly and Alexander Wiley.*)	3058	21st Nov. 1866	Alfred Vincent Newton.
Certain improvements in machinery to be employed in the making of nails, spikes and other articles of a similar character.	3095	24th Nov. 1866	William Bass.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials - - - - - (*for screw cutting.*)	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Improvements in the manufacture of studs or nails for upholstery, harness and other purposes, and in the apparatus employed therein. (*Communicated by Hippolyte Parpaite.*)	3248	10th Dec. 1866	Clinton Edgcumbe Brooman.
Improvements in nails and in machinery for manufacturing the same. (*Communicated by Arlon Mas Polsey.*)	3328	18th Dec. 1866	William Robert Lake.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
NAILS, &c.—*continued.*			
An improved method for securing the nuts of bolts	3334	19th Dec. 1866	Rudolph Bodmer.
Machinery for cutting, punching and shaping metals for screw nuts and like articles.	3410	28th Dec. 1866	Francis Watkins.
Machinery for shaping and forging metals into rivets, bolts, screw blanks and like articles.	3412	28th Dec. 1866	Francis Watkins.
OIL-CLOTHS, FLOOR-CLOTHS, TABLE-COVERS AND FURNITURE-COVERS; RICK-CLOTHS AND WAGGON COVERS.			
Manufacture of kamptulicon and similar fabrics -	11	1st Jan. 1866	Caleb Taylor. William Dyer Harry. John Dooley.
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*for table covers.*) (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
The use and application of paper, printed or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpets and oilcloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (*Communicated by Anson Henry Platt.*)	114	13th Jan. 1866	William Robert Lake.
Manufacture of leather fabrics - - - (*coverings for floors.*)	272	27th Jan. 1866	John Harcourt Brown.
Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics - -	278	29th Jan. 1866	William Hersee. George Smyth.
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling. (*for floor cloths.*)	779	15th March 1866	Thomas Goulston Ghislin.
Apparatus for coating wagon covers and other fabrics and materials.	1316	8th May 1866	Walter M'Ilwraith.
Manufacturing textile fabrics - - - (*for tables.*)	1428	21st May 1866	Adolphe Casse.
Manufacture of compounds in the nature of kamptulicon.	1564	6th June 1866	Alexander Parkes.
An improved corn rick stand and waterproof cover -	1991	2nd Aug. 1866	John Beacham Ham.
Improvements in the mode of applying covers or awnings to garden and other similar seats, which improvements are also applicable to awnings or covers for other purposes. (*Communicated by Adolphe Laumeau.*)	2042	8th Aug. 1866	Eugène Henri Désiré Ingé.
Material used for the beds of horses and other animals. (*linoleum, kamptulicon, &c.*)	2130	20th Aug. 1866	Thomas Henderson.
New or improved modes of ornamenting kampakaon, linoleum, kamptulicon, enamelled india-rubber floor cloths and other similar articles.	2149	22nd Aug. 1866	John Longbottom.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OIL-CLOTHS, &c.—*continued.*			
Manufacture of floor cloths and coverings and similar called fabrics, and also of picture frames, articles of furniture and ornaments thereon. (*Communicated by Henry Ludwig Danchell.*)	2180	24th Aug. 1866	Frederick Hahn Danchell, C.E.
Manufacture of elastic mats and coverings for floors	2541	3rd Oct. 1866	Thomas Forster.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing, and placing, connecting and fastening together textile and other fabrics or materials, so as to be sewn or stitched or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Improvements in floor, leather, brattice, oil and other cloths, and in their manufacture - -	2712	20th Oct. 1866	John Howard Kidd. James Chadwick Mather.
Certain improvements in the manufacture of 'oil baizes,' 'stair-baizes' and 'oil floor cloths' or other varnished or japanned fabrics, and in machinery or apparatus employed therein.	2795	29th Oct. 1866	John Thorpe.
Coverings for floors - - - - ("*burlap.*") (*Communicated by James Hawthorne Spencer.*)	3007	16th Nov. 1866	John Henry Johnson.
Improvements in door mats, which improvements are also applicable to coverings for floors of passages, offices and other places.	3053	21st Nov. 1866	John Tasker.
OILING OR LUBRICATING; MATERIALS FOR OILING; OIL-CANS AND LUBRICATORS.			
An improved apparatus for lubricating purposes -	49	6th Jan. 1866	William George Beattie.
Improved means of lubricating the spindles of cap and cup frames employed in spinning and twisting fibrous substances, applicable also for lubricating other frictional surfaces of machinery	160	17th Jan. 1866	Edmund Feather. Thomas Feather. John Luty.
Lubricating certain frictional surfaces in steam-engines.	167	18th Jan. 1866	Henry Ashwood.
Improvements in the boxes or bearings of axles of railway and other similar carriages, and in the method of or arrangements for lubricating such axles. (*Communicated by Wilhelm Basson and Ferdinand Ludecke.*)	253	25th Jan. 1866	Francis Wise.
Apparatus for lubricating purposes - - (*Communicated by Arthur Lewis Le Gallo.*)	263	26th Jan. 1866	John Henry Johnson.
Axle-boxes for railway carriages - - -	362	6th Feb. 1866	Edward Adolph Hermann Beuther.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OILING, &c.—*continued.*			
Lubricating the axles and bearings of railway rolling stock and other machinery. (*Communicated by François Haeck.*)	365	6th Feb. 1866	Thomas James Smith.
Improvements in preparing size or stiffening, and in applying the same to textile materials or fabrics.	386	8th Feb. 1866	Joseph Townsend.
Improvements in or applicable to machinery or apparatus for spinning and doubling fibrous substances, parts of which improvements are also applicable to other purposes. (*lubricating spindles.*)	448	13th Feb. 1866	John Townsend.
Preparing materials for preventing and removing incrustation in steam-boilers, for lubricating machinery, and for scouring cloth and other substances.	484	15th Feb. 1866	Peter Ward.
Arrangement and construction of meters or apparatus for measuring water or other fluids - (*lubricating the axis of the drum.*)	733	10th March 1866	Walter Chrimes Myers. Edward Myers.
Improvements in projectiles and in cartridges - (*applying lubricating material.*) (*Communicated by John Webster Cochran.*)	834	21st March 1866	Clinton Edgcumbe Brooman.
Improvements in lubricating the journals of shafts, which said improvements are also applicable to the lubrication of the bearings of axles used in other machinery - - - - -	858	23rd March 1866	William Whittaker. William Lowe.
Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances. (*lubricating spindles.*)	1031	11th April 1866	Godfrey Anthony Ermen.
Certain improvements in connection with sizing machines or tape legs. (*lubricating the cylinders.*)	1076	16th April 1866	Samuel Bennett.
Machinery for spinning and doubling - - (*lubricating spindles.*)	1112	20th April 1866	Charles Hastings. James Briggs. James Law. Hiram Mitchell.
Steps for the spindles of spinning frames - - (*Communicated by Thomas Marsh.*)	1279	4th May 1866	George Tomlinson Bousfield.
Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearings" of any vertical shafts. (*Communicated by Thomas Marsh.*)	1281	5th May 1866	James Marsh.
Improvements in preparing lubricating compounds and in lubricating the journals and bearings of machinery.	1432	21st May 1866	Alexander Bewicke Blackburn.
Improvements in the deodourizing of crude rock or mineral oil, and in the preparation of lubricating oil therefrom. (*Communicated by James Mott and George Cowles.*)	1522	31st May 1866	John Henry Johnson.
Wheeled carriages - - - - - -	1529	1st June 1866	Charles Bräutigam.
Improvements in brick making machines and in the machinery or apparatus for operating the same. (*Communicated by Isaac Gregg.*)	1739	29th June 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OILING, &c.—*continued.*			
Apparatus for lubricating purposes - - (*Communicated by Arthur Lewis Le Gallo.*)	1759	2nd July 1866	John Henry Johnson.
Grease cups - - - - - - (*Communicated by Gebhard Hagenmeyer.*)	1832	12th July 1866	William Clark.
An improved method of and apparatus for lubricating the spindles of cap spinning and doubling frames, which apparatus is also applicable as a cleaner to flyer spinning and doubling frames	1853	16th July 1866	Robert Clough. Prince Smith the elder.
Steps or foot bearings for spindles - - (*Communicated by Thomas Marsh and David Fales.*)	2027	6th Aug. 1866	William Robert Lake.
Manufacture of the wheels of carriages for conveying coals and other minerals in the working of mines. (*Communicated by Etienne Pagat.*)	2103	16th Aug. 1866	Henri Adrien Bonneville.
Machines for making eyelets - - - (*Communicated by Thomas Garrick.*)	2250	1st Sept. 1866	George Tomlinson Bousfield.
A new or improved cup or apparatus for containing and supplying oil for lubricating purposes. (*Communicated by Victor Lieuvain.*)	2312	8th Sept. 1866	Clinton Edgcumbe Brooman.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.
Certain improvements in the method of lubricating vertical spindles or shafts, and in the apparatus for effecting the same. (*Communicated by Thomas Marsh.*)	2421	21st Sept. 1866	James Marsh.
Treatment of the residues resulting from and obtained in the purification and distillation of mineral oils, for the purpose of utilising the same.	2472	25th Sept. 1866	John James Lundy.
Machinery for carding wool and other fibrous materials. (*Communicated by Célestin Martin.*)	2481	26th Sept. 1866	Henri Adrien Bonneville.
Improvements in and apparatus for sizing cotton warps. (*and lubricating.*)	2659	15th Oct. 1866	George Lake jun^{r}.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
Packing pistons and stuffing boxes. (*Communicated by Jones Saunders.*)	2699	18th Oct. 1866	James Hosken.
Lubricators - - - - - -	2763	26th Oct. 1866	John Storer.
An improved method of lubricating axle-trees of fixed engines.	2925	10th Nov. 1866	Auguste Gobert.
An improved greasing apparatus to diminish friction. (*Communicated by Paul Beljambe.*)	2929	10th Nov. 1866	Henri Adrien Bonneville.
Apparatus for testing the lubricity of oils and other lubricants - - - - -	2953	12th Nov. 1866	James Ingram. Heinrich Stapfer.
Certain improvements in apparatus or mechanism for preparing and spinning cotton or other fibrous substances. (*lubricating bolster bearings.*)	3102	26th Nov. 1866	John Buckley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OILING, &c.—*continued.*			
Improvements in the treatment and spinning of jute, hemp, flax and other fibrous substances, and the machinery or apparatus employed therein.	3109	26th Nov. 1866	William Taylor.
Screw valves - - - - - - (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.
OILS FROM SEEDS, ANIMAL AND VEGETABLE OILS, TREATING FATTY AND OILY MATTERS.			
Treating fatty and oily bodies - - -	330	2nd Feb. 1866	George Gwynne.
Manufacture of pancreatic emulsions of solid and liquid fats and oils.	944	3rd April 1866	Julius Schweitzer.
Apparatus for the treatment of certain fatty and oily substances in order to obtain products therefrom. (*Communicated by Henri Edouard Renner.*)	1014	9th April 1866	John Henry Johnson.
An improved process for purifying animal and vegetable oils, and all other kinds of oils, except mineral oils.	1053	13th April 1866	Auguste Jaumenne.
Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (*oils.*) (*Communicated by Louis Pierre Robert de Massy.*)	1130	21st April 1866	William Edward Newton.
Purification, clarification and preparation of animal and vegetable wax, tallow, oils and other similar waxy and fatty substances.	1171	26th April 1866	Scipion Sequelin.
A new process in the treatment of concrete fatty acids for the manufacture of candles, called 'Stearine candles.'	1626	15th June 1866	Louis Adolphe de Milly.
An improved anti-acid oil - - -	1633	16th June 1866	William Barrington Brown.
Improved apparatus for treating corn and other materials. (*or for oil works.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Treatment of certain residues in order to obtain fatty acids therefrom - - - - - ("*cotton seed foots.*")	1885	19th July 1866	Robert Irvine. Peter Brash.
Certain improvements in machinery or apparatus for amalgamating, purifying, cooling and bleaching lard or other similar materials.	2003	3rd Aug. 1866	Nicholas Kilvert.
Treating fatty and oily matters - - -	2110	16th Aug. 1866	George Payne.
Use and application of an inorganic glyceric ether -	2115	17th Aug. 1866	Alfred Paraf.
Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (*Communicated by Jean Baptiste Lahore.*)	2145	21st Aug. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OILS, &c.—*continued.*			
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats.	2418	20th Sept. 1866	Charles Crump.
Improved apparatus for separating liquid from solid substances	2696	18th Oct. 1866	Nathaniel Grew. George Henry Money.
Apparatus for testing the lubricity of oils and other lubricants	2953	12th Nov. 1866	James Ingram. Heinrich Stapfer.
Preparation and application of certain fatty bodies (*Communicated by Mathias Paraf-Javal and Eugene Paraf-Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
OILS OF TAR, BITUMEN AND RESIN; NAPHTHA, PARAFFINE, &c.; MINERAL OILS; HYDRO-CARBONS, PHOSPHORUS.			
An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fire-works and for other purposes.	309	31st Jan. 1866	Alexander Dembinsky.
Apparatus or machinery for distilling and refining petroleum and other oils.	319	1st Feb. 1866	James Bouverie Grant.
Purification and hardening of paraffin wax	322	1st Feb. 1866	William Bryer Nation.
Purifying paraffin	471	14th Feb. 1866	James Soames. James Kolle Soames.
Treatment of certain products obtained in the refining of petroleum and of other hydro-carbon oils.	553	23rd Feb. 1866	John Fordred.
Improvements in the manufacture of oil and other products from bituminous substances, and in the machinery or apparatus employed therein, which improvements or parts thereof are also applicable to the manufacture of white lead or other pigments.	603	27th Feb. 1866	Hugh Robertson.
An improved process of and apparatus for distilling petroleum and other liquid substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spalding Fales.*)	606	27th Feb. 1866	William Edward Newton.
Process of and apparatus for the distillation of tar and other substances. (*Communicated by John Pericles Vincent, John Stevens Richards, Orange Noble, Charles Harrison Lovrein, Henry Rawle and Levi Spaulding Fales.*)	616	28th Feb. 1866	William Edward Newton.
An improvement or improvements in the manufacture of phosphorus.	660	5th March 1866	Jacob Hort Player.
Obtaining illuminating gas	769	15th March 1866	George M'Kenzie.
Construction of coke ovens (*and making coal oils.*)	919	29th March 1866	Charles Pardoe.
An improved compound volatile oil or spirit for burning in lamps of suitable construction. (*Communicated by Philip Lichtenstadt.*)	1021	10th April 1866	Elisabeth Lichtenstadt.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Oils of Tar, &c.—*continued.*			
Improvements in the distillation of coal, shale and other bituminous substances, to obtain oily matters therefrom, also in the redistillation of the products thereby obtained - -	1278	4th May 1866	William Young. Peter Brash.
Improvements in the deodourizing of crude rock or mineral oil, and in the preparation of lubricating oil therefrom. (*Communicated by James Mott and George Cowles.*)	1522	31st May 1866	John Henry Johnson.
Improvements in retorts and in the mode of working the same, to obtain crude paraffin and other oils from cannel, coal, bituminous matter, wood, peat, bones or other material.	1600	12th June 1866	James Nicholas.
Apparatus for the treatment of hydro-carbon oils -	1697	26th June 1866	James Young the younger.
The application of certain spirituous compounds for the production of motive-power. (*naphtha for producing steam.*)	1714	27th June 1866	John Jordan.
Refining paraffine wax - - - - -	1905	23rd July 1866	James Leach.
Improvements in the mode of and apparatus for the distillation, rectification and disinfection of mineral or vegetable oils, applicable also to the purification and rectification of fatty and other products of such oils. (*Communicated by Jean Baptiste Lahore.*)	2145	21st Aug. 1866	William Edward Newton.
Apparatus for the distillation of paraffine and petroleum or other hydrocarbon oils - -	2271	4th Sept. 1866	William Cartwright Holmes. Jno. Wm. Perkins.
Manufacture of oil from shale and other bituminous substances - - - - - -	2380	17th Sept. 1866	Peter Brash. William Young.
Treatment of the residues resulting from and obtained in the purification and distillation of mineral oils, for the purpose of utilising the same.	2472	25th Sept. 1866	John James Lundy.
Improvements in the arrangement and construction of lamps for burning volatile oils or spirits, and in the preparation of the materials for burning in such lamps. (*Communicated by Philip Lichtenstadt.*)	2575	6th Oct. 1866	Elisabeth Lichtenstadt.
Improved arrangements of apparatus for storing or holding petroleum and other inflammable liquids. (*Communicated by Felix Bizard and Pierre Labarre.*)	2700	18th Oct. 1866	Clinton Edgcumbe Brooman.
Improvements in the treatment or distillation of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.	2788	29th Oct. 1866	Charles M'Beath.
Means for operating on air or aëriform fluids by hydrocarbons, for purposes of illumination. (*see* "Gas.")	2873	6th Nov. 1866	Nathaniel Fortescue Taylor.
An improved process for extracting oil and paraffine from bituminous substances, such as peat or coal. (*Communicated by S. Lloyd Wiegand.*)	3106	26th Nov. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee
Optical Instruments; Telescopes, Microscopes, Stereoscopes, Lenses; Optical Illusions.			
A new or improved apparatus or device for producing theatrical or stage illusions	184	20th Jan. 1866	George Tanner. George Parkes.
An improved photographic lens	396	8th Feb. 1866	John Henry Dallmeyer.
Optical instruments (*Communicated by Leon Jaubert.*)	473	14th Feb. 1866	Henry Edward Newton.
Binocular microscopes	581	24th Feb. 1866	Peter Henry Lealand.
Apparatus to be employed in illusory exhibitions	689	7th March 1866	Alfred Stoddart.
Reflecting optical instruments	723	9th March 1866	Henry Temple Humphreys.
Improvements in the construction of goggles to be used for the cure of "strabismus" or squint, which said improvements are also applicable to the stages of microscopes.	890	27th March 1866	Salom Henry Salom.
Achromatic object glasses	920	31st March 1866	William Wray.
Improvements in stereoscopes, which improvements are also applicable to instruments for exhibiting single views.	1085	17th April 1866	Philippe William Gengembre.
Improvements in eye-glasses usually termed shooting glasses or hat frames, which improvements are also applicable to other spectacles.	1105	19th April 1866	Charles Dales.
Improvements in stands for telescopes, surveying and other instruments, which stands are also applicable for other purposes.	1285	5th May 1866	Thomas Dennis Rock.
Compound lenses suitable for photographic uses	1641	18th June 1866	John Henry Dallmeyer.
A new or improved mode of reflecting various coloured lights and shades upon stereoscopic and other objects, for producing different effects thereon.	2210	28th Aug. 1866	William Gould.
Compound lenses suitable for photographic uses	2502	27th Sept. 1866	John Henry Dallmeyer.
Apparatus adapted to the representation of opaque objects to an enlarged scale.	2550	3rd Oct. 1866	John Holmes Wrench.
An improved method or mode of producing optical illusions for dramatic and other like exhibitions	3110	26th Nov. 1866	William Henry Harrison.
A magic camera	3116	27th Nov. 1866	Auguste Fournet. Octave Nadaud.
Ovens and Kilns.			
Coke ovens (*Communicated by Jacob Bowers.*)	349	5th Feb. 1866	Charles Denton Abel.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware	399	9th Feb. 1866	Edward Bevan. Abel Fleming.
Range ovens	427	10th Feb. 1866	John Goffe Clarke.
Improved cooking apparatus	894	27th March 1866	Frederic Pelham Warren.
Construction of coke ovens	919	29th March 1866	Charles Pardoe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OVENS, &c.—*continued.*			
Coke ovens	933	2nd April 1866	William Blow Collis. Edward John Collis.
Apparatus for heating houses and apartments (*Communicated by David Greene Haskins.*)	1003	7th April 1866	George Davies.
Fire-places or furnaces of malt and other kilns	1147	23rd April 1866	Richard William Abbotts.
An improved furnace or oven for the cooling of window glass, and apparatus to be used therewith.	1159	25th April 1866	Désiré Bievez.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses. (*calciner or hot chamber.*)	1163	25th April 1866	George Edward Noone.
Manufacture of glass (*kilns.*)	1297	7th May 1866	Antoine Pocheron.
Lime kilns or apparatus to be used in burning lime.	1317	8th May 1866	John Russell Swann.
Improvements in the means of effecting the combustion of fuel and in apparatus employed therein. (*in lime kilns.*) (*Communicated by Jacob Bührer and Carl Hamel.*)	1365	12th May 1866	Astley Paston Price.
Ovens for baking bread and other aliments (*Communicated by Charles Nicolas Athanase Lesobre.*)	1472	26th May 1866	Henri Adrien Bonneville.
Kilns or apparatus for generating heat	1563	6th June 1866	Peter Righetti.
Mode of and apparatus for heating bakers' ovens	1608	13th June 1866	John Lunt.
Construction of furnaces and kilns (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
Improvements in burning and drying bricks, pottery, earthenware, clay, lime and cement, and in the apparatus employed therein. (*kilns.*)	1794	7th July 1866	Robert Kunstmann.
Lamps and other lighting and heating apparatus fed by mineral or other volatile liquids. (*for heating ovens.*)	1907	23rd July 1866	Alexandre Magnin.
Kitchen ranges, ovens and steamers	2121	17th Aug. 1866	Ebenezer Stevens.
Lime and cement kilns	2179	24th Aug. 1866	Philip Arthur de Berenger.
Ovens for baking	2291	6th Sept. 1866	George Pimm.
Improvements in brewing, malting, distilling, and apparatus employed therein, parts of which are applicable for drying grain or other goods. (*or for baker's ovens.*)	2416	20th Sept. 1866	Andrew Barclay Walker.
Construction of travelling ovens (*Communicated by William Hinchliffe.*)	2737	23rd Oct. 1866	George Haseltine.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*heating malt kilns.*)	2744	24th Oct. 1866	Joseph Watts.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OVENS, &c.—*continued.*			
Apparatus used in the manufacture of gas (*applicable to ovens for distillation.*)	3226	7th Dec. 1866	Alexander Colvin Fraser.
Improvements in the manufacture of coke and charcoal, and in the ovens employed therein.	3419	29th Dec. 1866	Humphrey Chamberlain.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.	3453	31st Dec. 1866	Frederic Pelham Warren.
OXIDATION AND INCRUSTATION (*Preventing and Removing.*)			
Vertical steam-boilers for marine and other purposes. (*preventing incrustation.*)	166	18th Jan. 1866	Daniel Adamson.
An improved compound for removing and preventing incrustation in steam-boilers.	228	23rd Jan. 1866	Mark Silvester.
Certain improvements in preventing oxidation, as also the fouling of the lower parts of iron-built ships, which said improvements are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood.	352	5th Feb. 1866	John Russell.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
Preparing materials for preventing and removing incrustation in steam-boilers, for lubricating machinery, and for scouring cloth and other substances.	484	15th Feb. 1866	Peter Ward.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*for anti-fouling purposes.*)	580	24th Feb. 1866	William Welch.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*preventing incrustation.*)	667	5th March 1866	James Gray.
Bolts to be used in the building or construction of ships or vessels. (*preventing corrosion.*)	734	10th March 1866	William Simons.
Protecting iron ships and other submerged structures from corrosion and fouling.	774	15th March 1866	Martyn John Roberts.
Manufacture of metal bolts and rods for shipbuilding and other purposes.	879	24th March 1866	William Boggett.
Carts for distributing water, liquid manure and other fluids over roads and lands (*preventing oxidation.*)	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OXIDATION, &c.—*continued.*			
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*preventing corrosion of metal.*)	922	31st March 1866	James Davis.
Improvements in the hoops of ladies' skirts and in the covering of steel springs for the same and analogous uses.	1015	9th April 1866	Sylvester Judson Sherman.
Improvements applicable to steam-boilers - (*preventing deposit.*)	1059	14th April 1866	John Jordan.
An improved composition for preventing incrustation in steam-boilers.	1076	16th April 1866	James Harris.
An improved varnish for preserving wood and for protecting iron ships and other metal work from oxydation and from fouling. (*Communicated by Adolphe Guibert.*)	1078	17th April 1866	Clinton Edgcumbe Brooman.
An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (*preventing corrosion.*) (*Communicated by James Beeston and John Spence.*)	1102	19th April 1866	Robert Hamilton.
An improvement in the manufacture of bar iron and steel. (*Communicated by Bernard Lauth.*)	1104	19th April 1866	Alfred Vincent Newton.
Manufacture of sheet iron - - - (*Communicated by Richard Norton Allen and Charles Chauncey Hinsdale.*)	1121	20th April 1866	George Haseltine.
Protecting iron ships from fouling and corrosion -	1195	27th April 1866	Jacob Baynes Thompson.
Preventing corrosion and fouling of iron ships -	1209	28th April 1866	William Peter Piggott.
An improved preparation or composition for removing and preventing incrustation in steam-boilers.	1251	2nd May 1866	George Feasey.
An improved composition for removing incrustations and preventing the formation of the same in steam-boilers. (*Communicated by Jacob James Lavo and Peter Menard Chouteau.*)	1495	29th May 1866	George Haseltine.
Certain improvements in apparatus applicable to steam-boilers or generators. (*preventing incrustation.*)	1535	2nd June 1866	Samuel Turton.
The application of certain spirituous compounds for the production of motive-power. (*avoiding incrustation in boilers.*)	1714	27th June 1866	John Jordan.
Apparatus for preventing incrustation in steam-boilers. (*Communicated by Joseph Toth.*)	1720	27th June 1866	Baldwin Fulford Weatherdon.
Busks of stays and corsets - - - (*preventing oxidation.*)	1771	4th July 1866	Robert Alfred Young.
Elastic fabrics - - - - - -	1870	18th July 1866	John Macintosh. William Boggett.
An improved method of and apparatus for preventing incrustation in steam-boilers. (*Communicated by Robert Breckenridge Baker and Charles James Adolphus Dick.*)	1924	24th July 1866	Edward Primeroes Howard Vaughan.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
OXIDATION, &c.—*continued.*			
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Deoxidation and precipitation - - - - (*Communicated by Mathias Paraf-Javal.*)	1978	1st Aug. 1866	Alfred Paraf.
Improvements in waterproofing textile fabrics, and in preserving leather, cork, wood and vulcanized india-rubber, also terra-cotta, stucco, brick and like substances. (*preventing oxidation.*)	2084	14th Aug. 1866	Charles Francis Baxter.
An improved mode of preventing oxidation of lead balls in fixed ammunition. (*Communicated by Barton Howard Jenks.*)	2215	28th Aug. 1866	William Edward Newton.
Improvements in the construction and arrangement of steam-boilers, and in means or apparatus for collecting sediment or deposit therein. (*Communicated by Joseph Augustus Miller.*)	2720	22nd Oct. 1866	John Garrett Tongue.
Treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so called galvanized iron, and also for manufacturing such plate in imitation of Russia iron. (*removing oxide.*) (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*for protecting from rust.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.
PAINTING, COLOURING AND VARNISHING; PAINTS, COLOURS, VARNISHES, GLAZES AND LACQUER.			
Preparation of pigments - - - - (*Communicated by Stuart Gwynn.*)	26	3rd Jan. 1866	Alfred Vincent Newton.
Making building bricks impervious to water or waterproof. (*glazing.*)	40	5th Jan. 1866	Elias Taylor.
The use and application of paper, printed or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpets and oilcloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (*Communicated by Anson Henry Platt.*)	114	13th Jan. 1866	William Robert Lake.
Machines for graining in imitation of wood and marble. (*Communicated by Robert Adams.*)	186	20th Jan. 1866	George Tomlinson Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAINTING, &c.—*continued.*			
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*ash useful as pigment.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Mont-clar.
Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics - -	278	29th Jan. 1866	William Hersee. George Smyth.
Apparatus for embossing in colours on paper, envelopes or other articles - - - (*automatic colouring of dies.*)	296	30th Jan. 1866	John Ingram. John Gough.
Manufacture of saltpetre and white-lead - -	301	31st Jan. 1866	Clarence Delafield.
Treating certain chemical matters and compounds for producing glazed surfaces.	308	31st Jan. 1866	George Greaves.
Certain improvements in the ornamentation of silk and satin fabrics. (*using paint for transferring designs.*)	387	8th Feb. 1866	Richard Edwin Higson.
Treatment of certain products obtained in the refining of petroleum and of other hydro-carbon oils. (*obtaining drying oils.*)	553	23rd Feb. 1866	John Fordred.
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*or paints.*)	580	24th Feb. 1866	William Welch.
Improvements in the manufacture of oil and other products from bituminous substances, and in the machinery or apparatus employed therein, which improvements or parts thereof are also applicable to the manufacture of white lead or other pigments.	603	27th Feb. 1866	Hugh Robertson.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*in lieu of paint or varnish.*)	748	12th March 1866	John Macintosh.
Colouring capsules - - - - -	959	4th April 1866	William Betts.
A new or improved mode of printing patterns on dyed silks and all kinds of dyed goods. (*Communicated by Pierre Courmons.*)	1063	14th April 1866	Richard Brabason Legge.
An improved varnish for preserving wood, and for protecting iron ships and other metal work from oxydation and from fouling. (*Communicated by Adolphe Guibert.*)	1078	17th April 1866	Clinton Edgcumbe Brooman.
An improvement in the manufacture of metallic acetates and carbonates simultaneously with the production of vinegar and glucose. (*white lead.*)	1332	9th May 1866	Robert Rowland.
Treatment of grains from brewers, distillers and vinegar makers, rendering them more suitable for the food of cattle, and for brewers' purposes as a substitute for patent malt, and also in treating the wort or liquor extracted from the said grains in order to convert it into a spirit or liquid suitable for manufacturing purposes. (*spirit varnish.*)	1445	23rd May 1866	Edward Gripper.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAINTING, &c.—*continued.*			
Improvements in treating coal, cannel, shale or their compounds, or the residuum thereof from calcination or distillation, and in manufacturing plastic substances and forms, cements, pigments, colouring matter and manure therewith.	1568	7th June 1866	John Carrington Sellars.
Improvements in the manufacture of cards, tablets and other articles from which marks made with ink or lead pencil may be repeatedly erased by moisture, without injury to the surface. (*covering with varnish.*)	1582	8th June 1866	Henry Josiah Griswold.
Manufacture of pigments - - -	1639	18th June 1866	John Edward Tennison Woods.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - -	1643	19th June 1866	Thomas Chaloner. James Billington.
Manufacture of white lead - - - (*Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.*)	1703	26th June 1866	William Robert Lake.
Painters' easels - - - - - -	1809	10th July 1866	John Spreckley Cuthbert.
Machinery or apparatus for staining or coating the surfaces of paper with color or other material -	2005	3rd Aug. 1866	Thomas Campbell. Henry Coffey.
Manufacture of carbonates and bi-carbonates of soda and potash, the soluble and insoluble silicates of soda and potash, and muriatic acid, from chlorides of sodium and potassium. (*Communicated by Hadyn Mozart Baker, Joseph Henry Poole and William Ralph Stace.*)	2026	6th Aug. 1866	William Edward Newton.
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats. (*for making varnishes.*)	2418	20th Sept. 1866	Charles Crump.
Improvements in drying solid substances and in the apparatus or means employed therein. (*white lead.*)	2453	24th Sept. 1866	Robert Kunstmann.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
An improved composition to be substituted for ordinary paints - - - - -	2540	3rd Oct. 1866	William Hope. Henry Browning.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes. (*supporting painters' platforms.*)	2816	31st Oct. 1866	John Scott.
An improved composition for coating walls or other surfaces so as to render them impervious to the action of water or moisture.	2850	3rd Nov. 1866	Richard Jarraud Gay.
A new or improved portable or folding reading desk, stand or easel.	2853	3rd Nov. 1866	Edward Parsons North.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (*or washing with silicates.*) (*Communicated by Charles Nivert and Blaise Dussap.*)	2904	7th Nov. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAINTING, &c.—*continued.*			
Manufacture of white lead - - - - (*Communicated by William Bell, Thomas Mara Fell and Ambrose George Fell.*)	3133	28th Nov. 1866	William Robert Lake.
Improvements in the manufacture of white lead and in the vessels connected therewith. (*Communicated by John Harvey Hebert.*)	3180	4th Dec. 1866	Henri Adrien Bonneville.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - - -	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*glaze or varnish.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
An improved mode of rendering paint uninflammable. (*Communicated by Joseph Benvhue Harris.*)	3327	18th Dec. 1866	William Robert Lake.
Apparatus and material for ornamental painting, graining, marbling and such like purposes.	3330	18th Dec. 1866	Thomas Titterington.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects. (*painting.*)	3341	20th Dec. 1866	Walter Gilbey.
An improved process for preparing wood and other materials preparatory to ornamenting or graining the same, and also for finishing materials so prepared when ornamented or grained, and for finishing wood and other materials when painted or grained but not prepared by the said process.	3369	21st Dec. 1866	Samuel Jacobs.
PAPER, PASTEBOARD AND PAPIER-MÂCHÉ; PAPER-HANGINGS.			
1.—Making Paper, Papier-mâché, Preparing Pulp, &c.			
Preparing and treating wood and wood pulp for the manufacture of paper. (*Communicated by Jean Baptiste Neyret, Zéphirin Gaspard Alexandre Nathan Petrone Orioli and Amable Alfred Fredet.*)	35	4th Jan. 1866	William Clark.
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials. (*for paper making.*)	39	5th Jan. 1866	James Ronald.
An improved mode of preparing albumenized paper and the process connected therewith.	66	9th Jan. 1866	James Skinner.
Mode of and apparatus for extracting liquor from macerated fibres employed in the manufacture of paper.	69	9th Jan. 1866	William Anderson.
Improved machinery or apparatus for the manufacture of paper pulp.	140	15th Jan. 1866	Carl Heinrich Roeckner.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAPER, &c.—*continued.*			
Treatment and utilization of certain waste products resulting from the combustion of boghead, cannel and other coals and minerals, and from the treatment of china clay and other analogous substances. (*ash for loading paper.*)	200	22nd Jan. 1866	Charles Gregory Penney.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*obtaining paper pulp.*)	265	26th Jan. 1866	Henry Sherwood.
Manufacture of paper by the employment of a fibre not hitherto used in this manufacture - -	332	2nd Feb. 1866	Henry Larkin. Robert Purkis.
Combining together surfaces of wood - - (*substitute for millboard.*)	451	13th Feb. 1866	Samuel Drake.
Manufacture of endless cloths - - - (*used in paper making.*)	501	16th Feb. 1866	James Heywood Whitehead.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauzique.*)	659	5th March 1866	Marc Antoine François Mennons.
An improved process of bleaching - - (*fibre for paper stock.*) (*Communicated by John Jordan Eckel, Isaac Smith Schuyler and James Waring Gillies.*)	672	5th March 1866	Alfred Vincent Newton.
An improvement in the manufacture of waterproof paper.	675	6th March 1866	Reuben German Allerton.
An improved mode of treating waste liquors for the dissipating or utilizing of the same - (*in paper making.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
Bleaching books, engravings, paper, cotton and other similar articles and substances. (*Communicated by Justin Henry David.*)	925	31st March 1866	John Henry Johnson.
Preparing and treating gun cotton - - (*making paper.*)	953	3rd April 1866	Eustace Carey Prentice.
Improvements in treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
An improved process for recovering cotton waste and similar matters after they have been soiled in cleaning machinery or otherwise.	1010	9th April 1866	Felix Lieven Bauwens.
Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper.	1153	24th April 1866	Rachel Stackhouse.
Printing and finishing all materials where ultramarine colors are used.	1176	26th April 1866	Alfred Paraf.
Improvements in machinery for preparing and cleaning flax, tow, hemp, cotton, shoddy and other materials employed in textile manufactures and in the manufacture of paper.	1444	23rd May 1866	William Rowan.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAPER, &c.—*continued.*			
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein - - - (*drying paper.*)	1450	23rd May 1866	John Longbottom. James Eastwood.
Improvements in and apparatus for dressing or preparing for spinning hemp, flax, jute, manilla-hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics into oakum, tow and paper stuff, dressing and cleaning "waste" tow, wool, hair and other like "waste" fibres.	1814	11th July 1866	William Walker.
Improved machinery or apparatus and processes for the manufacture of paper pulp from wood and other fibrous materials - - -	1980	1st Aug. 1866	Joseph Sawyer. Frederick Bauman.
Manufacture of envelopes and of paper for making envelopes.	2109	16th Aug. 1866	Dudley Rolls.
An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood, straw and other fibrous material, for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (*Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Colton.*)	2156	22nd Aug. 1866	George Haseltine.
Treating and purifying water - - - (*from paper works.*)	2218	28th Aug. 1866	Robert Irvine.
Softening, disintegrating and bleaching vegetable fibres. (*for making paper.*)	2236	30th Aug. 1866	James Montague Mellor
Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.	2269	4th Sept. 1866	Edward Nelson.
Machinery for cutting rags, ropes and other articles for paper-making and other purposes -	2347	12th Sept. 1866	Enoch Harrison Aydon. Ebenezer Pocock.
Manufacture of paper - - - - -	2445	22nd Sept. 1866	Alfred Colmer Wansbrough.
Improved machinery, apparatus and processes for preparing and treating vegetable fibres to be used as "half-stuff" in the manufacture of paper, papier-mâché and such like materials.	2698	18th Oct. 1866	William Simpson.
Machines for making paper - - - (*Communicated by Richard Smith and Oliver Ellsworth.*)	2728	23rd Oct. 1866	John Henry Johnson.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Manufacture or preparation of leather and other materials. (*paper and pasteboard.*) (*Communicated by Jean François Piedallu.*)	3114	26th Nov. 1866	William Clark.
Machinery or apparatus for manufacturing cardboard or pasteboard.	3127	28th Nov. 1866	George Backhouse.
Machinery or apparatus to be used for the manufacture of paper.	3299	15th Dec. 1866	George Bertram.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAPER, &c.—*continued.*			
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*preparing photographic paper.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
Rag grinding machines (*Communicated by Joseph Maison.*)	3378	22nd Dec. 1866	Joseph Rhodes. William Sunderland Rhodes. Josiah Rhodes.
II.—Cutting, Folding and Ornamenting Paper and Papier-mâché; Applications of Paper.			
The use and application of paper printed or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpets and oil-cloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (*Communicated by Anson Henry Plait.*)	114	13th Jan. 1866	William Robert Lake.
The manufacture and application of scales and handles suitable for knives and other articles of cutlery, from substances not hitherto employed for that purpose. (*from paper.*)	142	16th Jan. 1866	John Bottom. William Bottom.
Machinery for the manufacture of paper bags (*Communicated by Benjamin Spencer Binney.*)	223	23rd Jan. 1866	William Clark.
Apparatus for embossing in colours on paper, envelopes or other articles	296	30th Jan. 1866	John Ingram. John Gough.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
A machine for cutting, stamping and embossing paper, cardboard, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (*Communicated by Edwin Blood.*)	437	12th Feb. 1866	Alfred Vincent Newton.
Improvements in machinery for the manufacture of articles usually made in Britannia metal, pewter, German or nickel silver and silver, and improvements in the manufacture and ornamentation of such articles, parts of which last named improvements are also applicable to other purposes. (*application of papier mâché to tea-pot handles.*)	740	10th March 1866	Philip Henry Ashberry.
Uniting and combining mineral and metallic substances with vegetable fibres and fabrics. (*metallizing paper.*) (*Communicated by Taliaferro Preston Shaffner.*)	1177	26th April 1866	George Haseltine.
Improvements in making cop tubes and in apparatus therefor	1264	4th May 1866	Henry Douglas. James Douglas.
Improvements in the moulds or matrices of stereotype plates, and in machinery for forming the same. (*employing paper moulds.*) (*Communicated by John Edson Sweet.*)	1448	23rd May 1866	George Haseltine.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAPER, &c. — *continued.*			
Manufacture of paper and cardboard boxes, and the lids of the said boxes.	1523	31st May 1866	John Linnett.
Machinery or apparatus for making envelopes and paper bags. (*Communicated by Robert Parks and John Armstrong.*)	1554	5th June 1866	John Henry Johnson.
Machinery for burnishing or polishing enamelled paper. (*Communicated by Edwin Blood.*)	1921	24th July 1866	William Edward Newton.
Tubes and skewers for cops - - - (*of paper.*)	1928	25th July 1866	James Strang.
Imitating mother of pearl upon various surfaces - (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.
Machinery or apparatus for staining or coating the surfaces of paper with color or other material -	2005	3rd Aug. 1866	Thomas Campbell. Henry Coffey.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics - (*or paper.*)	2350	13th Sept. 1866	Edmund Phillips. James Howie.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
A new or improved method of printing or applying designs in relief and brilliancy to all kinds of fabrics. (*on paper.*)	2719	22nd Oct. 1866	François Petitdidier.
Apparatus for cutting continuous paper into sheets, and in piling or disposing of the same when cut.	2808	30th Oct. 1866	Henry Martyn Nicholls.
Manufacture of brushes - - - -	2812	30th Oct. 1866	Frederick Brown.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes. (*on paper, papier mâché, &c.*)	2937	10th Nov. 1866	Gustave Josse.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*metallizing paper.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Machinery or apparatus for manufacturing cardboard or pasteboard.	3127	28th Nov. 1866	George Backhouse.
Machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces - - - - -	3222	6th Dec. 1866	John Cameron MacDonald. Joseph Calverley.
Manufacture of capsules applicable to bottles and other receptacles. (*papier mâché pulp, &c.*)	3245	8th Dec. 1866	Alexander Southwood Stocker.
An improved coating for paper and other materials designed to receive lead pencil marks which may be repeatedly expunged with moisture.	3392	24th Dec. 1866	Sylvester Franklin Schoonmaker.
III.—Paper-hangings.			
Apparatus for measuring and blocking drapery goods, paper hangings and such like purposes.	325	2nd Feb. 1866	William Boase.
Certain improvements in printing designs on paper for hangings, coverings, sun blinds and other purposes.	467	14th Feb. 1866	Robert Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAPER, &c.—*continued.*			
Construction of brushes for polishing paper prepared for the manufacture of paper hangings.	805	19th March 1866	John Higginbottom.
Application of materials to surfaces for ornamental purposes. (*paper-hangings.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
Manufacture of paper hangings	1447	23rd May 1866	Paul Marie Balin.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers (*for paper hangings.*)	1643	19th June 1866	Thomas Chaloner. James Billington.
Apparatus employed in printing and folding paper-hangings and woven fabrics.	2463	25th Sept. 1866	James Barker.
Machinery or apparatus for pasting wall papers	2758	25th Oct. 1866	Daniel McDermid.
Certain improvements in machinery or apparatus to be employed in printing paper, calico or other surfaces	3227	7th Dec. 1866	Jesse Lowe. Peter Lowe.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers (*or graining paper.*)	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
PAVING, ROAD-MAKING AND CLEANSING; PAVEMENTS; SCOURING STONE FLOORS.			
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*sweeping roads or streets.*)	286	29th Jan. 1866	James Robertson.
Improvements in machinery used in cutting stone, slate and other minerals, and in forming tunnels, galleries and roads	433	12th Feb. 1866	William Fothergill Cooke. George Hunter.
Construction of roads and streets (*Communicated by Lucien Boilley.*)	591	26th Feb. 1866	John Henry Johnson.
Girders manufactured in iron, steel or otherwise, combined with timber. (*for road making.*)	1544	4th June 1866	Constantine Henderson.
Construction of streets, roads and footways	1565	6th June 1866	Arthur Young. William Young.
Paving roads, streets, yards or other similar ways or surfaces.	1663	22nd June 1866	Charles Philippe Henry.
Improved machinery for facing or smoothing the surface of stone.	1730	29th June 1866	Thomas Smith.
An improved sweeping machine or apparatus (*Communicated by Alexandre Philippe Eugène Fleurquin.*)	1919	24th July 1866	William Edward Gedge.
An improved horse road scraper and brush	2020	6th Aug. 1866	William Smith.
An improved pavement for roads, streets and other thoroughfares. (*Communicated by Charles Sebille.*)	2240	30th Aug. 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PAVING, &c.—*continued.*			
The manufacture of scouring stones, commonly called soft or sandstones, used for the scouring and cleansing of stone floors, steps or other similar parts of domestic dwellings or other edifices, or similar places.	2464	25th Sept. 1866	James Duckett.
A new metallic brush (*for cleansing roads.*)	2817	31st Oct. 1866	Thomas Welton.
Improvements in constructing and repairing roads, and in apparatus to be employed therefor	3079	23rd Nov. 1866	William Henry Postlethwaite Gore. Robert Green.
An improved scrubbing machine (*cleaning floors.*) (*Communicated by Andrew Irion.*)	3282	13th Dec. 1866	William Robert Lake.
An improved street sweeper	3417	29th Dec. 1866	William Smith.
PEAT.			
Machinery used for raising and treating peat or bog earth or soil.	57	8th Jan. 1866	James Hodges.
Improvements in the manufacture of peat fuel and in the machinery employed therein.	545	22nd Feb. 1866	John Dickinson Brunton.
An improved method of agglomerating peat, by which it is rendered suitable for use as fuel in the furnaces of manufactories and in other fireplaces. (*Communicated by Edmund Sharpe.*)	590	26th Feb. 1866	William Edward Gedge.
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling.	779	15th March 1866	Thomas Gouiston Ghislin.
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances into bricks, tiles, pipes or other useful or ornamental articles (*moulding peat.*)	1057	14th April 1866	Charles Henry Murray. Mathew Jennings.
Manufacture of non-conducting substances for impeding the passage of heat. (*peat.*)	1327	9th May 1866	John Allcock Jones.
Construction of furnaces and kilns (*for drying peat.*) (*Communicated by Alexandre Martin and Albert Béranger.*)	1752	2nd July 1866	Henri Adrien Bonneville.
A certain improved method of producing illuminating gas (*from peat.*)	1827	12th July 1866	William Glassford Walker. Robert Frazer Smith.
Manufacture of fuel from peat and such like vegetable matter. (*Communicated by Louis Elsberg.*)	1971	31st July 1866	George Tomlinson Bousfield.
Improvements in drying solid substances and in the apparatus or means employed therein. (*peat.*)	2453	24th Sept. 1866	Robert Kunstmann.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PENS, PENHOLDERS, PENCILS AND PENCIL-CASES.			
An improvement in pen-holders, consisting of an arrangement for supplying the pen with ink	183	20th Jan. 1866	Henry Dean. George Alfred Wheeler.
Mathematical drawing instruments (*geometrical pens, &c.*)	664	5th March 1866	William Ford Stanley.
Pen and pencil holders or cases	709	8th March 1866	John Abraham Norman. Abraham Norman.
Improved means of ascertaining the weight and postage of letters. (*Communicated by Hippolyte Adeon Depierris.*)	742	12th March 1866	Henri Adrien Bonneville.
An improved pencil for writing or marking upon textile fabrics. (*Communicated by Edward Augustus Whitney, Henry Roberts and William Bainbridge Hale.*)	873	24th March 1866	Alfred Vincent Newton.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
An improved feeding holder applicable to writing and drawing pens.	1236	2nd May 1866	Fortuné François Benvenuti.
Penholders	1307	8th May 1866	George Seeley.
An improved instrument for writing	1695	26th June 1866	Henry Sullivan.
Improvements in holders for marking materials, which improvements are also applicable as holders for other substances.	1839	13th July 1866	William Edward Wiley.
Ink supplying penholders	2309	8th Sept. 1866	Arthur Frank Chapple.
An improved penholder and means of supplying ink to pens.	3215	6th Dec. 1866	John Darling.
Improved apparatus for setting steel pens	3367	21st Dec. 1866	Michael Weber.
Manufacture of metallic boxes (*to hold steel pens, leads, &c.*)	3428	29th Dec. 1866	Friedrich Leonardt.
PETTICOATS SKIRTS, STAYS, CRINOLINES, DRESS SUSPENDERS, COLLARS, SHAWLS, MUFFS, LADIES' FANS.			
Ladies' dresses	206	22nd Jan. 1866	William Chickall Jay.
A new and improved construction of pocket for male or female attire, whereby the property contained therein is rendered secure from theft or accidental loss.	313	1st Feb. 1866	George David Jones.
Springs for ladies' skirts and similar purposes (*Communicated by Jules Libert.*)	334	2nd Feb. 1866	John Henry Johnson.
Machinery for making collars, cuffs, wristbands and other similar articles of dress. (*Communicated by Henry Francis Knapp.*)	474	14th Feb. 1866	William Edward Newton.
Looms for weaving a certain class of fabrics (*puckered fabrics for petticoats.*)	542	21st Feb. 1866	John Smalley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PETTICOATS, &c.—*continued.*			
Improvements in the hoops of ladies' skirts, and in the covering of steel springs for the same and analogous uses.	1015	9th April 1866	Sylvester Judson Sherman.
Crinolines - - - - - - (*Communicated by Catherine Vergeat-Meunier, Widow.*)	1024	10th April 1866	William Clark.
Crinoline skirts - - - - - (*Communicated by Leon Maxe Werly.*)	1163	26th April 1866	Henri Adrien Bonneville.
An improved construction of pocket for male and female attire - - - - -	1243	2nd May 1866	Joseph Robinson Towers. Thomas Clutterbuck. John Bell Muschamp.
Apparatus for supporting and extending the skirts of ladies' dresses - - - -	1321	8th May 1866	Désireé Gautier. Albert Domeier.
Muffs - - - - - -	1561	6th June 1866	Leopold Morris.
Busks of stays and corsets - - - -	1771	4th July 1866	Robert Alfred Young.
Looms for weaving stays and similar uneven fabrics.	1790	6th July 1866	Charles Heptonstall.
Fastenings for corsets, stays and other articles of dress. (*Communicated by William Sparks Thomson.*)	1860	17th July 1866	Edward Drucker.
Ladies' dress suspenders - - - -	2004	3rd Aug. 1866	James Whittaker.
Apparatus to be used in the fringing and trimming of shawls, mantles and other fabrics requiring fringes or trimmings.	2202	27th Aug. 1866	Jonathan Northrop.
Articles consisting of muffs combined with bags, pockets or similar receptacles - - -	2232	29th Aug. 1866	Josef Loebl. Ignac Pick.
A new and useful improvement in hoop-skirts - (*Communicated by Augustus James Colby.*)	2264	3rd Sept. 1866	Henri Adrien Bonneville.
Improvements in hats or coverings for the head, parts of which improvements are applicable to parasols and fans. (*Communicated by William Henry White.*)	2299	7th Sept. 1866	John Henry Johnson.
Clips or fastenings for the bands of purses and pocket books, and for other bands, and for other like purposes. (*fastening ends of crinoline.*)	2373	15th Sept. 1866	Thomas Newey.
Jackets, capes and other like garments for ladies -	2409	19th Sept. 1866	John Peter Robinson.
An improved apparatus for fitting garments - (*Communicated by Silas Otis Brigham.*)	2517	29th Sept. 1866	Henri Adrien Bonneville.
An improved apparatus for distending the lower part of ladies' dresses or petticoats.	2742	24th Oct. 1866	Elizabeth Mignot.
The improved manufacture of coverlets, rugs, quilts or covers for beds, and certain articles of wearing-apparel, and as a stuffing for cushions and pillows.	2885	7th Nov. 1866	Edward Huxley.
Certain improvements in the manufacture of clasps for stay busks, braces, belts, garters, boots, leggings, gloves and bands.	2892	7th Nov. 1866	James Clement Newey.
A new manufacture of ladies' skirts - - (*Communicated by Morris Opper.*)	3009	16th Nov. 1866	Alfred Vincent Newton.
Muffs - - - - - - (*Communicated by Messrs Quelle, Bro.*)	3148	30th Nov. 1866	Eugene Ehrenfried Quelle.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PETTICOATS, &c.—*continued.*			
An improvement in certain articles of wearing-apparel, commonly called shirt fronts or dickeys and chemisette fronts.	3324	18th Dec. 1866	George Speight.
Ladies' wearing-apparel	3398	27th Dec. 1866	Hannah White Shaw.
Manufacture of elastic gussets (*for stays.*)	3451	31st Dec. 1866	James Miller. James Miller Junr.
PHOTOGRAPHY AND PHOTOGRAPHIC APPARATUS.			
An improved method of and apparatus for finishing impressions (in colored gelatine or other soluble material) obtained from metallic or other plates produced by the aid of photography	105	12th Jan. 1866	Walter Bentley Woodbury. George Davies.
Producing printing surfaces by the aid of photography.	324	2nd Feb. 1866	David Winstanley Junr.
An improved photographic lens	396	8th Feb. 1866	John Henry Dallmeyer.
Production of copper or other metallic plates for the purpose of printing therefrom. (*Communicated by Francis Kossuth and Louis Theodore Kossuth.*)	449	13th Feb. 1866	Charles Gilpin, M.P.
Improvements in photography and in the process of producing printing surfaces and other like surfaces, by the aid of photographic agency. (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Production of ornamental surfaces for jewellery and other purposes.	505	17th Feb. 1866	Walter Bentley Woodbury.
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
Improved means and apparatus for producing new effects in photographic portraiture.	820	20th March 1866	William Silvester Laroche.
Portable dark chambers or tents for the purposes of photographic manipulation in the field, and of containing and transporting the necessary apparatus.	980	5th April 1866	Edgar Cox.
A new magic photography	987	6th April 1866	William Grüne.
Improvements in stereoscopes, which improvements are also applicable to instruments for exhibiting single views.	1085	17th April 1866	Philippe William Gengembre.
Production of photographic pictures	1179	26th April 1866	Charles Hedler.
Producing designs upon wood and other materials by the aid of photography.	1315	8th May 1866	Walter Bentley Woodbury.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbell Dallas.
Production of photographic prints	1364	12th May 1866	William Henry Southwell. Frederick Southwell. Edwin Southwell.
An improved album for exhibiting photographs and other pictures. (*Communicated by John Spooner.*)	1473	26th May 1866	Corey M'Farland.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PHOTOGRAPHY, &c.—*continued.*			
Compound lenses suitable for photographic uses -	1641	18th June 1866	John Henry Dallmeyer.
Photographic printing - - - -	1786	6th July 1866	Lorenzo Field.
An improved method of and apparatus for printing from metal intaglios (obtained by the aid of photography) in gelatinous or other semi-transparent ink.	1918	24th July 1866	Walter Bentley Woodbury.
A new or improved mode of reflecting various coloured lights and shades upon stereoscopic and other objects, for producing different effects thereon.	2210	28th Aug. 1866	William Gould.
An improved mode of and apparatus for determining the actinic power of light.	2355	13th Sept. 1866	Louis Bing.
Compound lenses suitable for photographic uses -	2502	27th Sept. 1866	John Henry Dallmeyer.
Means of reproducing signs, characters and other marks in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Emile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Developing invisible photographs by the action of the ammonia vapours evolved from tobacco, and improvements in cigar tubes or holders and tobacco pipes for holding the said photographs.	2641	12th Oct. 1866	Wilhelm Grüne.
Obtaining photographic pictures - - -	2869	5th Nov. 1866	Malbec de Briges.
Improved apparatus to be used in obtaining photograms.	2939	10th Nov. 1866	Thomas Skaife.
Photography - - - - -	2997	15th Nov. 1866	Luigi Bernieri.
A chemical decoration on gold, silver and other similar metals, and colours on porcelain, glass-wares, crystal-wares, delft-wares, potters' wares and similar matters, called 'Grune's' proceding.	3002	15th Nov. 1866	Wilhelm Grüne.
Preparation of printing surfaces by the aid of photography.	3113	26th Nov. 1866	Robert Henelade Courtenay.
Obtaining basso-relievo or other such designs in relief and also in depression by the aid of photography.	3177	3rd Dec. 1866	David Winstanley junr.
Photographic pressure frames - - -	3221	6th Dec. 1866	Farindon Lane.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*fixing photographs, preparing paper, &c.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
Producing printing surfaces and carvings from moulds obtained by the aid of photography.	3393	24th Dec. 1866	Robert Howe Ashton.
PICTURES, PORTRAITS AND MINIATURES; PICTURE FRAMES.			
An improved method of and apparatus for finishing impressions (in colored gelatine or other soluble material) obtained from metallic or other plates produced by the aid of photography	105	12th Jan. 1866	Walter Bentley Woodbury. George Davies.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PICTURES, &c.—*continued.*			
Preparation of peat for the purpose of rendering it applicable to the manufacture of articles which are capable of being produced by stamping, moulding, embossing or rolling. (*for moulding picture-frames.*)	779	15th March 1866	Thomas Goulston Ghislin.
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
A new or improved kind of expanding window-blinds, cornice poles, blind rollers and other window fittings, also picture rods and stair rods.	857	22nd March 1866	Montagu Archdeacon.
Production of photographic pictures - -	1179	26th April 1866	Charles Hedler.
Production of photographic prints - - -	1364	12th May 1866	William Henry Southwell. Frederick Southwell. Edwin Southwell.
An improved method of and apparatus for preparing and fluting picture and other frames and mouldings. (*Communicated by Guilliamimus Pohlmann and John Dalk.*)	1407	18th May 1866	Richard Gesell. Alfred Lea.
An improved album for exhibiting photographs and other pictures. (*Communicated by John Spooner.*)	1473	26th May 1866	Corey M'Farland.
Manufacture of floor cloths and coverings and similar called fabrics, and also of picture-frames, articles of furniture and ornaments thereon. (*Communicated by Henry Ludwig Danchell.*)	2180	24th Aug. 1866	Frederick Hahn Danchell, C.E.
A new or improved composition to be employed in architectural mouldings, and for other useful and decorative purposes. (*picture frames.*)	2320	10th Sept. 1866	Charles Bathoe.
An improvement or improvements in manufacturing, decorating and ornamenting articles of furniture. (*picture-frames.*)	2343	12th Sept. 1866	James Pratt Bright.
Mounts for cartes de visite and playing cards -	2864	5th Nov. 1866	Henry Medd.
Obtaining photographic pictures - - -	2869	5th Nov. 1866	Malbec de Briges.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (*pictures.*) (*Communicated by Charles Nivert and Blaise Dussap.*)	2904	7th Nov. 1866	William Edward Newton.
Improved apparatus to be used in obtaining photograms.	2939	10th Nov. 1866	Thomas Skaife.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*picture-frames.*)	2975	13th Nov. 1866	William Walker Marston.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PICTURES, &c.— *continued.*			
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*picture cord.*)	3225	7th Dec. 1866	William Guest.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*for fixing prints.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
PILE-DRIVING AND DRAWING.			
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - - - (*raising pile-driving weights.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Pile shoes - - - - - -	99	12th Jan. 1866	William Eassie.
Construction of coffer dams - - -	816	20th March 1866	Henry King.
Friction breaks and apparatus for giving motion to machinery. (*screwing down screw piles.*)	2881	6th Nov. 1866	Robert David Napier.
PILLARS, COLUMNS, POSTS, SLABS, VASES; STATUARY.			
Manufacture of telegraph standards, fencing posts and signal posts.	24	3rd Jan. 1866	George Sinclair Robertson.
Manufacture of telegraphic and signal pillars or posts.	89	10th Jan. 1866	William Baines.
Improvements in and relating to fence, gate and telegraph posts - - - - -	514	19th Feb. 1866	Matthew Andrew Muir. James M'Ilwham.
Improvements in casting metals and in moulds employed therein. (*columns.*) (*Communicated by François Antoine Marie Boué.*)	611	28th Feb. 1866	Richard Archibald Brooman.
Moulding pipes, pillars, rollers or other articles of a similar character - - - - -	1007	9th April 1866	James Foster. John Hollinrake.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses.	1803	9th July 1866	William Baines.
Mile posts and other indicators or signs used on railways and other places - - - -	1877	18th July 1866	John Goad. Edmond Goad.
Improvements in making moulds for casting ground screws for fence and other posts, and in apparatus therefor - - - - -	2060	10th Aug. 1866	Matthew Andrew Muir. James M'Ilwham.
Apparatus for cutting, grinding and finishing marble and other similar materials. (*slabs.*) (*Communicated by James W. Maloy.*)	2092	15th Aug. 1866	William Brookes.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PILLARS, &c.—*continued.*			
Machinery and tools for cutting slate, stone, marble and other minerals - - - - (*columns, slabs, &c.*)	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke.
A new or improved composition to be employed in architectural mouldings, and for other useful and decorative purposes. (*balcony pillars or columns.*)	2320	10th Sept. 1866	Charles Bathoe.
Straining or tightening wire - - -	2397	18th Sept. 1866	Joseph Henry Sams.
Construction of letter boxes and letter pillars -	2404	19th Sept. 1866	William Dennis.
Improvements in the process of casting iron cylinders or any other cast iron pieces with hard metallic thickness or wrapper, and separately with white and grey iron, so that both kinds of casting are sticking together. (*columns.*)	2518	29th Sept. 1866	Jean Gueunier-Lauriac.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*for statuary.*) (*Communicated by Asa Hill.*)	2900	7th Nov 1866	George Haseltine.
An improved mode of and apparatus for cleaning the exterior of houses, public buildings, objects of art, ornamental surfaces, walls, carriages and other articles or things. (*Communicated by Charles Nivert and Blaise Dussap.*)	2904	7th Nov. 1866	William Edward Newton.
Sculpturing or forming ornamental and other devices on and in marble, stone and other substances.	2960	12th Nov. 1866	Abdiel Hawkins.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*vases.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*busts.*)	2975	13th Nov. 1866	William Walker Marston.
Electric telegraphs - - - - - - (*posts or standards.*)	3038	19th Nov. 1866	Josiah Latimer Clark.
Construction of telegraph standards and insulators	3281	13th Dec. 1866	Charles Coles Adley.
PINS AND NEEDLES.			
Circular frames for the manufacture of looped fabrics. (*construction of needles.*) (*Communicated by Emile Lecœur.*)	134	15th Jan. 1866	Richard Archibald Brooman.
Construction of needles employed more particularly in fancy needle work on canvass. (*Communicated by Gustave Mayer.*)	378	7th Feb. 1866	Benjamin Browne.
Hair pins - - - - - - -	711	8th March 1866	Adolphus Trotman. John Trotman. Thomas John Cole.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PINS, &c.—*continued.*			
Improvements in hair and other pins, and in cases for containing the same - - - - -	867	23rd March 1866	Adolphus Trotman. John Trotman. Thomas John Cole.
A new knitting machine - - - - - (*"eye-pointed needle."*) (*Communicated by Jonas Hinkley.*)	948	3rd April 1866	Charles Albert Shaw.
Dress fastenings and ornaments - - - - (*pins for shawls, &c.*)	1131	21st April 1866	John George Taylor.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key. (*receptacle for pins.*)	1166	25th April 1866	Henry Charles Butcher.
An improvement in sewing needles - - -	1331	9th May 1866	Henry Essex.
An improved needle case or holder - - (*Communicated by Jules Doderet.*)	2251	1st Sept. 1866	Edmond Vincent Billiotte.
Improvements in crochet needles and in the handles of crochet needles.	2576	6th Oct. 1866	John Burgess.
Certain improvements in the manner of papering needles, and in wrappers or envelopes for the same.	2638	12th Oct. 1866	David Evans.
An improvement or improvements in the manufacture of certain descriptions of nails, tacks and pins.	2660	15th Oct. 1866	John Giles.
Improved pins, nails or tacks, the application of the same to certain purposes, and an apparatus to be employed in inserting the same when fixed to caps or capsules into corks. (*Communicated by Victor Palyart.*)	2706	19th Oct. 1866	Clinton Edgcumbe Brooman.
Machinery for compressing, rounding, or pointing wires or rods to form pins, needles or other articles of metal - - - - -	2714	20th Oct. 1866	Orin Lewis Hopson. Heman Porter Brooks.
Improvements in lockets, which improvements may also be applied to brooches, bracelets and other articles of jewellery and dress. (*and pins.*)	2786	27th Oct. 1866	Francesco Tubino.
Improvements in packing needles, and in papering needles or making up needles for sale.	2835	1st Nov. 1866	Maurice Pollack.
Manufacture or production of needles - -	3399	27th Dec. 1866	William Brookes. John Mayes.
Manufacture of metallic boxes - - - (*to hold pins.*)	3428	29th Dec. 1866	Friedrich Leonardt.
PIPES, TUBES AND SYPHONS; TOBACCO-PIPES; JOINING PIPES.			
An improved extensible apparatus for the passage of gases and fluids, especially adapted for gasaliers. (*Communicated by Edmond Robin and Henri Robin.*)	15	2nd Jan. 1866	Richard Archibald Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PIPES, &c.—*continued.*			
Machinery or apparatus for the construction or making of moulds for casting in metals. (*pipes.*)	56	8th Jan. 1866	Archibald Gibb.
An improved wrench and cutter - - - (*for cutting tubes.*)	68	9th Jan. 1866	William Dakin Grimshaw.
Machinery and apparatus employed in casting metal tubes and other articles.	172	19th Jan. 1866	William Sumner.
An improved syphon for drawing off liquids -	217	23rd Jan. 1866	Richard Henry Bore.
A new or improved vehicle for carrying the electric wires in submarine telegraphs. (*tube chains.*)	222	23rd Jan. 1866	François Wibratte.
Construction of steam-boilers - - -	226	23rd Jan. 1866	James Howard. Edward Tenney Bousfield.
Manufacture of wrought iron tubes applicable to different purposes. (*Communicated by Cadet Pierre Dubuisson.*)	305	31st Jan. 1866	Henri Adrien Bonneville.
Gas pipes - - - - - -	316	1st Feb. 1866	John Macintosh. William Boggett.
Apparatus for shaving and cutting metal bars and metal tubing - - - - -	506	17th Feb. 1866	John Wolstenholme. John Tomlinson Pendlebury.
Improvements in the manufacture of tubes and hollow cylinders, and in the machinery to be employed in the said manufacture.	538	21st Feb. 1866	William Webb.
Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith. (*pipes.*)	576	24th Feb. 1866	Thomas Spencer.
Improvements in casting metals and in moulds employed therein. (*pipes.*) (*Communicated by François Antoine Marie Boué.*)	611	28th Feb. 1866	Richard Archibald Brooman.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - - (*steam pipes.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Improved apparatus for cleaning the tubes of steam-boilers. (*Communicated by Daniel M'Dowell.*)	681	6th March 1866	Samuel Soutar.
Apparatus used in expanding boiler tubes - - (*Communicated by Richard Dudgeon.*)	699	7th March 1866	George Tomlinson Bousfield.
Funnels - - - - - - - (*Communicated by Marin Chavernot.*)	743	12th March 1866	Henri Adrien Bonneville.
Machinery for rolling and straightening cylindrical metallic rods and tubes. (*Communicated by Joseph Sidney Seaman.*)	796	17th March 1866	Frederick Collier Bakewell.
Certain improvements in gun barrels, ordnance whole or in parts, tubes, shafts and other cylindrical bodies - - - - -	901	27th March 1866	William Deakin. John Bagnall Johnson.
An improved instrument for cleaning pipes used in smoking.	943	2nd April 1866	Marie Pierre Ernest Vors.
Moulding pipes, pillars, rollers or other articles of a similar character - - - -	1007	9th April 1866	James Foster. John Hollinrake.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PIPES, &c.—*continued.*			
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances, into bricks, tiles, pipes or other useful or ornamental articles - - - - -	1057	14th April 1866	Charles Henry Murray. Mathew Jennings.
Pipes for smoking tobacco - - - - - (*Communicated by Jean Hochapfel and George Hochapfel.*)	1088	18th April 1866	George White.
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state - - (*tubes.*)	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Joints or connections for pipes - - - (*Communicated by Anton Richter and Romuald Bozek.*)	1157	24th April 1866	Charles Denton Abel.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
Apparatus used in moulding clay or other plastic material into bricks and other articles. (*pipes.*)	1194	27th April 1866	Thomas Dixcee.
Scrapers for cleaning gun barrels and other tubes - (*Communicated by Ephraim Lauriston Pratt.*)	1258	3rd May 1866	Jared Wilson Post. William McIntyre Cranston.
Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (*Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.*)	1282	5th May 1866	George Davies.
Manufacture of non-conducting substances for impeding the passage of heat. (*coating for pipes.*)	1327	9th May 1866	John Allcock Jones.
Method and means of securing and discharging the contents of pipes and vessels.	1330	9th May 1866	Samuel Middleton.
Improvements in the manufacture of hair felt and in apparatus therefor. (*for covering steam pipes.*)	1342	10th May 1866	John White.
Improvements in joining pipes and tubes, and in the packing to be employed for that purpose.	1351	11th May 1866	William Austin.
Cocks or taps for the attachment of pipes with soldered or plumbers' joints.	1419	19th May 1866	Henry Wilson.
Tobacco pipes - - - - - (*Communicated by Louis Goetsch.*)	1453	24th May 1866	William Snell.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same - - - -	1462	25th May 1866	William Gibson. Edward Ellis.
Construction of hydraulic presses for the manufacture of sheet lead pipes, bars and window lead.	1482	28th May 1866	Henry Stuttle.
A new or improved method of cleaning boiler tubes	1511	30th May 1866	The Right Honble. James Earl of Caithness.
Manufacture of certain fittings for gas, steam and water tubes.	1636	16th June 1866	George Henri Marc Muntz.
Apparatus for generating steam or heating liquids (*galvanizing water tubes.*)	1694	25th June 1866	Edward Field. Francis Wise.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture.	1638	26th June 1866	Charles Forster Cotterill.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PIPES, &c.—*continued.*			
Machinery for making the fittings for gas, steam and water pipes.	1776	4th July 1866	John Brotherton.
Improvements in the means and apparatus employed in the manufacture of taper or conical and other forms of wrought iron and steel tubes, and in forming flanches thereon.	1868	18th July 1866	George Plant.
Certain improvements in apparatus used for imbibing or sucking in liquids, known as "bombillas."	1895	21st July 1866	William Bellamy.
Improvements in shaping and forging metals, and in the machinery or apparatus employed therein. (*pipe fittings.*)	1903	21st July 1866	Robert Mitchell.
Tubes and skewers for cops - - -	1928	25th July 1866	James Strang.
Improved means and appliances for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required -	2006	3rd Aug. 1866	William Deakin. John Bagnall Johnson.
Couplings or connections particularly adapted for coupling or connecting gas, water and other pipes - - - - - -	2023	6th Aug. 1866	Ralph Medcalf. William Nichols.
Manufacture of umbrellas and parasols - -	2039	8th Aug. 1866	Henry Holland.
Improvements in the manufacture of earthenware and other pipes, and in machinery or apparatus to be employed in the said manufacture.	2059	10th Aug. 1866	Charles Forster Cotterill.
Manufacture of coiled iron tubes or cylinders used in the construction of cannon.	2061	10th Aug. 1866	George Wightwick Rendell.
An improved mode of fastening boiler tubes - (*Communicated by James Bowden, Horace Theall and William Henry Cobanks.*)	2062	14th Aug. 1866	Alfred Vincent Newton.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Machinery for the manufacture of spool tubes and cartridge cases.	2213	28th Aug. 1866	John Foster the younger.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*imparting strength to pipes.*)	2230	29th Aug. 1866	James Davis.
The elastic tubular india-rubber air chambered pannels. (*india-rubber tubes.*)	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Joints or connections for pipes - - - (*Communicated by Anton Richter and Romuald Bozek.*)	2244	31st Aug. 1866	Charles Denton Abel.
Improved apparatus for boring boiler tube heads, drilling angle holes or cutting circular groves in metallic substances. (*Communicated by James Miller.*)	2247	31st Aug. 1866	William Edward Newton.
Manufacture of seamless metallic tubes - - (*Communicated by William Forman Brooks.*)	2319	10th Sept. 1866	Alfred Vincent Newton.
Steam generators or boilers, water heaters and apparatus connected therewith.	2378	15th Sept. 1866	Joseph Twibill.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PIPES, &c.—*continued.*			
Tube cutters - - - - -	2395	18th Sept. 1866	Thomas Parkes.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Improved apparatus for steering vessels - - - (*pipe or waterway.*) (*Communicated by Robert Creuzbaur.*)	2456	24th Sept. 1866	Alfred Vincent Newton.
Composition and production of artificial stone, cements and other compositions. (*pipes.*)	2470	25th Sept. 1866	George Edward Van Derburgh.
Improvements in tube and bar cutters, and in apparatus connected therewith - - - -	2552	4th Oct. 1866	John Wolstenholme. Thomas Pendlebury.
Improved mechanical contrivances applicable to syphons, also adaptable in the production of pumps of improved construction.	2556	4th Oct. 1866	John Ambrose Coffey.
Developing invisible photographs by the action of the ammonia vapours evolved from tobacco, and improvements in cigar tubes or holders and tobacco pipes for holding the said photographs.	2641	12th Oct. 1866	Wilhelm Grüne.
An improved process for the preparation of india-rubber and kindred gums. (*for hose.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
Certain improvements in the construction of metallic pipes or tubes to be employed for the purposes of heating buildings and for extinguishing fire therein.	2734	23rd Oct. 1866	Robert Hollingdrake.
Manufacture of metal tubes - - -	2762	26th Oct. 1866	Philip Albert Muntz.
Screw stocks and tube cutters - - -	2840	2nd Nov. 1866	Thomas Chatwin.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*casting tubes.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Improvements in the construction of pipes, and in the mode of joining the same, for the transmission of gas, water, steam, air and other fluids.	2983	14th Nov. 1866	Thomas Seaville Truss.
Improvements in the manufacture of tubes and other articles, and in the apparatus employed therein.	2985	14th Nov. 1866	Hesketh Hughes.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*boiler tubes.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Means and apparatus employed for conveying telegraphic dispatches, letters and other light articles through tubes. (*Partly communicated by Dr Werner Siemens.*)	3080	24th Nov. 1866	Charles William Siemens.
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PIPES, &c.—*continued.*			
Furnaces and steam-boilers (*tubes from fire box.*)	3122	27th Nov. 1866	Thomas Dickins. Harvey Heywood. John Holland.
Forming the joints of iron and other tubes or pipes	3136	28th Nov. 1866	Louis Alexandre Fargon.
Syphons for drawing off beer, wine and other liquids from casks and other vessels.	3140	29th Nov. 1866	Thomas William Plum.
Certain improvements in the method of producing metallic tubes, pipes or other similar hollow articles.	3181	4th Dec. 1866	Joshua Horton.
Apparatus for conveying and regulating the supply of gas.	3258	11th Dec. 1866	Edmund Small Cathels.
An improved mode of and apparatus for cleaning the outer surfaces of steam-boiler tubes. (*Communicated by Edouard Victor Jules Joublin.*)	3259	11th Dec. 1866	William Edward Newton.
Improvements in centrifugal pumps, and in the joints or junctions of pipes and tubes. (*Communicated by Louis Coignard.*)	3336	19th Dec. 1866	Michael Henry.
Apparatus for taking off liquids from casks and other vessels, and similar purposes. (*stand pipe, syphon, suction pipe.*)	3440	31st Dec. 1866	Thomas William Plum.
For cop tubes *see* "BOBBINS."			
PISTONS AND PISTON PACKINGS.			
Lubricating certain frictional surfaces in steam-engines. (*piston and rod.*)	167	18th Jan. 1866	Henry Ashworth.
Improvements in and applicable to slide valves, pistons and glands. (*packing.*)	479	15th Feb. 1866	Thomas Adams. George John Parson.
The application of a certain material, in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required (*piston rods.*)	647	3rd March 1866	William Deakin. John Bagnall Johnson.
Rotary steam-engines	696	7th March 1866	Aaron Charles Baldwin
Certain improvements in metallic pistons	716	9th March 1866	Thomas Pattison. John Booth.
Packing for packing pistons and for other like purposes.	865	23rd March 1866	Thomas Ironmonger.
Engines worked by steam or other fluid	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Rotary blowers (*Communicated by Francis Marion Roots and Philander Highley Roots.*)	1333	9th May 1866	William Edward Newton.
An improved rotary engine to be used for pumping fluids or gases, or as a motive-power.	1402	17th May 1866	John Beale.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PISTONS, &c.—*continued.*			
Rotary steam-engines - - - - - (*Communicated by Matthias Wharton Baldwin.*)	1441	22nd May 1866	Alfred Vincent Newton.
An improved construction of rotary engine - (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets - - - - -	1700	26th June 1866	William Buckley. Levi Smith.
Pistons and cylinders - - - - -	1711	27th June 1866	Thomas Kennedy junior. James Barr.
Motive-power engines - - - - -	1848	14th July 1866	William Justice.
Certain improvements in metallic pistons -	2178	24th Aug. 1866	John Booth.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.
Certain improvements in metallic pistons -	2366	14th Sept. 1866	Alexander Oldham.
Improvements in fluid meters, also applicable to pumps and water pressure engines.	2434	21st Sept. 1866	John Mortimer Heppel.
Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (*Communicated by John Benjamin Root.*)	2466	25th Sept. 1866	Alfred Vincent Newton.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Packing for piston, valve, pump or other such rods or spindles.	2684	17th Oct. 1866	John Coates.
Packing pistons and stuffing boxes - - - (*Communicated by Jones Saunders.*)	2699	18th Oct. 1866	James Hosken.
Metallic packings for piston rods and other purposes. (*Communicated by Ralph Ogden.*)	2741	24th Oct. 1866	John Ogden.
An improved apparatus to excavate, deepen, scour and remove the mud, slime, sand, earth, shoal, gravel, stones, shingle or such like bodies, out of harbours, havens, docks, creeks, guts, bars, channels, water-courses, sluices, basins, lakes, ponds, marshes and similar places. (*packing of the pistons.*) (*Communicated by Jean Louis Vergniais and Julien Appollinaire Chéron.*)	2931	10th Nov. 1866	Henri Adrien Bonneville.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids -	3206	5th Dec. 1866	James Barwick. Samuel Tindall.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PLANTS, SEA-WEEDS, &c. (*Treatment of.*)			
Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose - - - - - (*the dwarf palm.*) (*Communicated by Signor Joseph Vanzina (d'Etienne).*)	107	12th Jan. 1866	Edward Sutherland. Horatio Sutherland.
Manufacture of paper by the employment of a fibre not hitherto used in this manufacture -	332	2nd Feb. 1866	Henry Larkin. Robert Purkis.
An improvement in the treatment of rami or rhea fibre, commonly called and known as China or India grasses - - - - - -	357	6th Feb. 1866	Peter Augustin Godefroy. John William Mott.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauzique.*)	659	5th March 1866	Marc Antoine François Mennons.
Improvements in treating the waste liquors resulting from the preparation of esparto grass, alfa straw and other fibrous substances, and in purifying the alkali recovered therefrom, and in furnaces or evaporating pans connected therewith - - - - - - -	812	19th March 1866	Thomas Routledge. Thomas Richardson. William Henry Richardson.
A new or improved compound preparation to be used in the treatment of jute and china grass. (*Communicated by Georges Hanot.*)	828	20th March 1866	William Clark.
Methods of solidifying the juice or sap of the bullet tree, otherwise known as balata juice, and the juices or saps of trees yielding similar or analogous elastic products. (*Communicated by Sydney Rupert Pontifex, F.C.S.*)	934	2nd April 1866	Edward Primerose Howard Vaughan.
Improvements in treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
An improved composition for preventing incrustation in steam-boilers.	1076	16th April 1866	James Harris.
Treating and applying a certain vegetable plant for the purposes of the tobacco plant. (*artichoke.*)	1132	21st April 1866	François César Buisson.
An improved anti-acid oil - - - - (*from sea-weed.*)	1633	16th June 1866	William Barrington Brown.
Treatment and application of vegetable fibres -	1761	2nd July 1866	Werner Staufen.
Improvements in treating carrigeen or Irish moss, sea-weed and like plants, to reduce them into a state of powder or meal, and in arrangements and apparatus to be used for the purpose.	2148	22nd Aug. 1866	William Weild.
Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.	2269	4th Sept. 1866	Edward Nelson.
Manufacture of paper - - - - (*using size from sea-weed.*)	2445	22nd Sept. 1866	Alfred Colmer Wansbrough.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PLANTS, &c.—*continued.*			
Improvements in treating vegetable substances, chiefly applicable to the manufacture of paper pulp and fibres. (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
A mode of treating the bark of the mulberry tree for the production of a new fibrous substance or vegetable silk. (*Communicated by Lucien Tracol-Faye.*)	2981	14th Nov. 1866	Henri Adrien Bonneville.
See also "FIBRES."			
PLATES, DISHES, CUPS AND SAUCERS; SALT CELLARS, TRAYS.			
An improved method of protecting the contact surfaces of vessels, utensils and articles of domestic use, and their supports. (*dish covers.*)	173	19th Jan. 1866	Joseph Alfred Nicholson.
Apparatus for manufacturing dishes, plates and other similar articles from pulverized clay or dust, or other suitable materials - - -	358	6th Feb. 1866	William Boulton. Joseph Worthington.
Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith. (*plates and dishes.*)	576	24th Feb. 1866	Thomas Spencer.
Rose engines - - - - - (*for ornamenting cups, &c.*) (*Communicated by Anton Schwitter and Lewis Schwitter.*)	653	3rd March 1866	William Clark.
An improvement in bread plates or dishes -	835	21st March 1866	Joseph Thompson. Benjamin Grayson.
Construction of salt cellars, and boxes, dishes or vessels containing other condiments.	1655	20th June 1866	Emile Bourdier.
An improvement in moulding or pressing glass - (*ale glasses.*)	1994	2nd Aug. 1866	John Thomas. Haden Richardson.
Forks, steels and knife sharpeners - - - (*combined with salt cellars, &c.*)	2663	15th Oct. 1866	Ebenezer Stevens.
An improved portable chamber or receptacle for containing articles whereby the same are caused to retain their heat.	2722	22nd Oct. 1866	Tempest Booth.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*trays.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Ornamenting glass - - - - (*dishes.*)	3270	13th Dec. 1866	John Robinson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PLOUGHING, DIGGING, CLOD-CRUSHING, LAND-ROLLING, HARROWING; AGRICULTURAL IMPLEMENTS; TILLING AND CULTIVATING LAND.			
Apparatus for sowing grain or seed and performing certain other operations connected therewith. (*forming furrows.*) (*Communicated by Alfred Jean Baptiste Bruillon and Pedro Martinez Lopez.*)	18	3rd Jan. 1866	Henri Adrien Bonneville.
Rollers for rolling or crushing land - -	20	3rd Jan. 1866	George Sheppard.
Preparation of soils to promote general vegetation and prevent insalubrious or unhealthy exhalations from manures placed thereon.	240	24th Jan. 1866	Thomas Spencer.
Machinery for rolling and clod crushing - -	266	27th Jan. 1866	John Spencer.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*cutting drains in arable land.*)	286	29th Jan. 1866	James Robertson.
Machinery for cultivating land - - -	567	23rd Feb. 1866	Nicholas Fisher.
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*Communicated by Robert Creuzbaur.*)	657	3rd March 1866	John Bischoff.
Spades, shovels, forks and other similar implements and tools.	761	14th March 1866	John William Yates.
Digging machinery - - - - - -	772	15th March 1866	Ormrod Coffeen Evans.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting implements of husbandry.*)	922	31st March 1866	James Davis.
An improved mode of working steam tilling implements - - - - - -	1192	27th April 1866	James Howard. Edward Tenney Bousfield.
An improved steam roller for agricultural purposes	1280	5th May 1866	William Henry Crispin.
Improvements in breaking, pulverizing or scarifying land, and in apparatus employed for such purpose.	1438	22nd May 1866	George Wood Homer.
An improved clod crusher - - - -	1443	23rd May 1866	Isaac James.
Horse rakes - - - - (*Communicated by Alzirus Brown.*)	1474	26th May 1866	John Gustavus Rollins.
Horse rakes - - - - - -	1490	29th May 1866	Robert Maynard. Robert Maynard the younger.
Improvements in the mode of and machinery for making hoes, trowels and other similar instruments.	1550	5th June 1866	Nathan Brand.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages. (*for drawing agricultural implements.*)	1957	28th July 1866	John Phillips-Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PLOUGHING, &c.—*continued.*			
An improved spade or digging implement (*Communicated by Marie Naslot.*)	1974	31st July 1866	William Edward Gedge.
An improved apparatus or implement for ploughing, digging and cultivating land.	2076	13th Aug. 1866	John Halliwell.
Clod-crushers and press wheel rollers	2288	3rd Sept. 1866	William Colborne Cambridge.
Manufacture of ploughs (*Communicated by "The Collins Company."*)	2754	25th Oct. 1866	Benjamin Joseph Barnard Mills.
Apparatus or machinery for bending chain links (*for chain harrows and rakes.*)	2834	1st Nov. 1866	Henry Richard John Denton.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes (*for agriculture.*)	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
Construction of horse-hoes	3150	30th Nov. 1866	William Wood Pilcher.
Ploughs	3175	3rd Dec. 1866	Frederick Volkmann.
Construction of horse rakes	3313	17th Dec. 1866	Edward Howell. Thomas Hardy.
An improvement in the mode of constructing shovels and spades.	3315	17th Dec. 1866	George Nimmo.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
PRESERVING AND PREPARING ARTICLES OF FOOD, CURING BACON, CUTTING AND MINCING MEAT; MAKING SAUCES, CONDIMENTS AND PICKLES; PARING CUCUMBERS; STONING RAISINS.			
Preserving potatoes	100	12th Jan. 1866	Frederick John King.
Improved apparatus for cooking potatoes	106	12th Jan. 1866	Pierre Louis Charon.
Improvements in the means or method of preserving in a fresh condition animal and vegetable substances, and in the apparatus to be employed therein.	138	15th Jan. 1866	Don Francisco Lecocq.
An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (*Communicated by William Emerson Baker.*)	398	9th Feb. 1866	William Robert Lake.
Preparation of meat for food	483	15th Feb. 1866	Arthur Hill Hassall.
A new or improved travelling knife for opening metal provision cases, and an apparatus to be used therewith.	599	27th Feb. 1866	Robert Yeates.
Cooling bacon-curing rooms or chambers	737	10th March 1866	Robert Andrew Boyd.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*cloths used in preserving meat, fruits, &c.*)	748	12th March 1866	John Macintosh.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESERVING FOOD, &c.—*continued.*			
Mode of and apparatus for diffusing moisture and heat through vegetable or other matters -	811	19th March 1866	Edward Field. Francis Lloyd.
An improved apparatus for sifting sugar or flour or other meals, or separating the smaller from the grosser particles in sauces and condiments.	909	29th March 1866	Morris Myers.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes.	921	31st March 1866	James Davis.
Receptacles for bottles, eggs and other fragile articles - - - - - - -	1027	10th April 1866	Stephen William Silver. Albert Hayward.
Apparatus for sifting flour and other substances - (*sauces and condiments.*) (*Communicated by Joseph Wells.*)	1073	16th April 1866	John Henry Johnson.
An improved mode of and apparatus for preserving milk and cream, more especially designed for keeping milk fresh during transport - -	1198	28th April 1866	George Burnard. Ludwig Koppel.
Method of and apparatus for pickling vegetables -	1254	3rd May 1866	Henry Arthur Manfield.
Improvements in the means of and apparatus for preserving animal and vegetable substances from decomposition or decay, and for the conveyance and transport of the same.	1349	10th May 1866	Donald Nicoll.
A new or improved machine for breaking or crushing ice, applicable to other purposes. (*for packing fish.*)	1416	18th May 1866	Joseph Purcell.
Jars for preserving fruits, meats and other substances. (*Communicated by John Jay Squire.*)	1573	7th June 1866	William Edward Newton.
Improved apparatus for treating corn and other materials. (*preserving.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Preserving animal substances - - -	1707	27th June 1866	Henry Medlock. William Bailey.
An improved apparatus for slicing and paring cucumbers and other vegetables and fruits.	1801	9th July 1866	Walker Moseley.
Machines for dressing or for removing dirt and foreign matters from currants and other fruit.	1856	16th July 1866	Richard Soans.
Improvements in preserving animal substances and in sealing tins or cases containing preserved provisions, and in the apparatus employed therein.	1904	21st July 1866	John Morgan.
An improved implement for beating and cutting meat and other substances.	1910	23rd July 1866	Levi Lemon Sovereign.
An improved apparatus or machine for removing the seeds or stones from raisins and other dried fruit. (*Communicated by William Emerson Baker.*)	2033	7th Aug. 1866	William Robert Lake.
A pickle piercer - - - - - -	2098	15th Aug. 1866	John William Hoffman. George Rowe Wilson.
An improved mode of preventing eggs of all kinds from spoiling. (*Communicated by Jesse Kersey Marsh.*)	2172	23rd Aug. 1866	William Edward Newton.
An improved sausage making and mincing machine.	2402	19th Sept. 1866	George Keene.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESERVING FOOD, &c.—*continued.*			
Improvements in the slaughtering of animals, with a view to the preservation of their bodies as articles of food, and in the method of preserving animal and vegetable substances - -	2454	24th Sept. 1866	John Gamgee. Arthur Gamgee.
An improved process for preserving milk, and apparatus connected therewith.	2478	26th Sept. 1866	Thomas Amey.
Provision safes - - - - - -	2632	11th Oct. 1866	William Watson.
Cases for holding preserved meat and other substances.	2639	12th Oct. 1866	Edward Conyers Dawson.
Improvements in the treatment and preservation of grain, pulse, seeds and flour or meal, and in the apparatus or means employed therein. (*Communicated by Wilhelm Ramann.*)	2798	30th Oct. 1866	John Henry Johnson.
An improved method of preserving cereals and other alimentary substances both vegetable and animal.	3014	17th Nov. 1866	Aimé Etienne Blavier.
Preserving corn or other grain, beans or seeds. (*see* "THRASHING.") (*Communicated by Nicolas Valentin Haussman.*)	3062	21st Nov. 1866	John Barker.
Preserving animal and vegetable substances -	3112	26th Nov. 1866	Nathaniel Southgate Shaler.
A concentrated milk for feeding infants and invalids. (*Communicated by Baron Justus von Liebig.*)	3142	29th Nov. 1866	Elise Von Lersner-Eberburg.
New or improved means for the prevention of rot in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (*see* "HORTICULTURE.") (*Communicated by John Francis Bennett.*)	3403	28th Dec. 1866	Charles Denton Abel.
Preparation of food, of a substance to be employed in place of malt, and for the medication of food for animals.	3433	29th Dec. 1866	Johnstone Napier.
PRESERVING AND HARDENING WOOD, METAL, STONE, SKIN AND OTHER SUBSTANCES.			
Means of preserving timber from decay - - (*Communicated by George Palmer Ball.*)	124	13th Jan. 1866	Alexander Prince.
Certain improvements in preventing oxidation, as also the fouling of the lower parts of iron-built ships, which said improvements are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood.	352	5th Feb. 1866	John Russell.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships, against the destructive effects of sea water, and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESERVING WOOD, &c.—*continued.*			
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*for preserving iron.*)	580	24th Feb. 1866	William Welch.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*for preserving stone, wood, &c.*)	748	12th March 1866	John Macintosh.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes.	921	31st March 1866	James Davis.
An improved varnish for preserving wood, and for protecting iron ships and other metal work from oxydation and from fouling. (*Communicated by Adolphe Guibert.*)	1078	17th April 1866	Clinton Edgcumbe Brooman.
Preserving animal substances - - - (*hides.*)	1707	27th June 1866	Henry Medlock. William Bailey.
Means of preserving timber from decay - - (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
Improvements in the preparation of soluble alkaline silicates to render them suitable for being used for preserving stone, wood and other materials, and for manufacturing artificial stone and for other purposes.	1859	16th July 1866	Léon Mignot.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
Preserving wood - - - - - (*Communicated by Louis Robins.*)	2034	7th Aug. 1866	John Nicholls Wood.
Improvements in waterproofing textile fabrics, and in preserving leather, cork, wood and vulcanized india-rubber, also terra-cotta, stucco, brick and like substances.	2084	14th Aug. 1866	Charles Francis Baxter.
Improvements in the purification of water, and in the disinfection and preservation of putrescent and putrescible matters. (*Communicated by Dr Willy Kühne.*)	2107	16th Aug. 1866	Adolph Kühne.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces. (*for preserving iron, wood, &c.*)	2168	23rd Aug. 1866	William Welch.
An improved method of treating limestone, and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilizing the substances to the various purposes of the builder. (*hardening wood, stone, &c.*)	2230	29th Aug. 1866	James Davis.
An improved method for the preservation of wood - (*Communicated by Monsieur Manne (Anatole).*)	2245	31st Aug. 1866	Augustus de la Gautraye.
An improved composition to be substituted for ordinary paints - - - - (*for preserving wood.*)	2540	3rd Oct. 1866	William Hope. Henry Browning.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESERVING WOOD, &c.—*continued.*			
Treating sheet iron plates for the purpose of preparing the same for being coated with zinc, for producing the so-called 'galvanized iron,' and also for manufacturing such plate in imitation of Russia iron. (*Communicated by Charles Henry Perkins.*)	2810	30th Oct. 1866	George Tomlinson Bousfield.
Manufacture or preparation of leather and other materials. (*preserving leather, paper, fabrics, &c.*) (*Communicated by Jean François Piedallu.*)	3114	26th Nov. 1866	William Clark.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*for preserving stone, wood, iron, &c.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects.	3341	20th Dec. 1866	Walter Gilbey.
PRESSES, COMPRESSING, PACKING AND ARRANGING.			
Printing presses, known as copper plate presses -	51	6th Jan. 1866	Henry Haley Collins.
Apparatus for effecting the folding or rigging and the papering of woven fabrics - - - -	77	10th Jan. 1866	Joseph Sampson. Charles Sampson. Henry Sampson. Amos Lockwood.
An improved method of and apparatus for finishing impressions (in colored gelatine or other soluble material) obtained from metallic or other plates produced by the aid of photography -	105	12th Jan. 1866	Walter Bentley Woodbury. George Davies.
Improvements in weighing machines and in apparatus for reducing to weight, part of which improvements are applicable for feeding blanks to coining presses and to other machines.	108	12th Jan. 1866	James Murdock Napier.
An improved machine for pressing bricks - - (*Communicated by Monsieur Louis Thelohan.*)	112	13th Jan. 1866	Hector Auguste Dufrene.
Machinery or apparatus for manufacturing and pressing fire bricks, which machinery or apparatus is also applicable to the manufacture and pressing of common clay and other bricks -	155	17th Jan. 1866	Christopher John Crondace. John Field.
Hydraulic presses - - - - -	161	17th Jan. 1866	Edward Cottam.
Lithographic presses - - - - -	171	18th Jan. 1866	Frederick Cole.
Improvements in packing bottles and in the construction of hampers to be used therefor.	205	22nd Jan. 1866	James Ritchie Butchart.
A machine for making buttons from plastic materials, grinding, polishing and carding the same, parts of which can be used in grinding, polishing and carding other kinds of buttons.	244	24th Jan. 1866	Lodner Darrevontis Phillips.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESSES, &c.—*continued.*			
Differential screw apparatus - - - - (*applicable to presses.*) (*Communicated by François Durand and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Hydraulic machinery - - - - (*revolving press.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Connecting or fastening the ends of iron or other metal bands surrounding bales of cotton, wool and other dry goods. (*Communicated by Henry Fassman.*)	320	1st Feb. 1866	Henry Charles Lucy.
Improvements in the construction, adaptation and application of machinery and apparatus for the manufacture of mats and envelopes of fibrous material, to cover and protect bottles and other fragile articles, and in the manufacture of such mats and envelopes.	373	7th Feb. 1866	George Clark.
Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.	423	10th Feb. 1866	John Pinches.
Improvements in copying presses, which improvements are also applicable to mangles or linen presses.	438	12th Feb. 1866	Charles Arnaud.
Machinery for packing and pressing black lead and other materials.	470	14th Feb. 1866	Richard Burgess Pilliner.
Improved mechanism for working apparatus for hoisting and pressing. (*Communicated by Dennis Frisbee.*)	476	15th Feb. 1866	Edward Thomas Hughes.
Improvements in hydraulic presses partly applicable to pumps.	624	1st March 1866	Edward Cottam.
An improvement in the manufacture of waterproof paper. (*for wrappers or envelopes.*)	675	6th March 1866	Reuben German Allerton.
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*making packing cloths.*)	748	12th March 1866	John Macintosh.
An improved machine for pressing straw hats and bonnets.	775	15th March 1866	Monroe Morse.
Improvements in hydrostatic presses and in the mode or method of working the same - -	958	4th April 1866	Alfred Augustus Hely. John Marshall.
An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (*Communicated by John Blake Tarr.*)	1001	7th April 1866	Alfred Vincent Newton.
Apparatus and processes for tanning - - (*Communicated by James Johnston.*)	1046	13th April 1866	James Marius Macrum.
Improved machinery for kneading, compressing, moulding or forming clay or other plastic substances, into bricks, tiles, pipes or other useful or ornamental articles - - - -	1057	14th April 1866	Charles Henry Murray. Mathew Jennings.
Fastenings of the metallic hoops or bands employed in baling cotton and other substances -	1097	19th April 1866	John Holmes. James Corbett Holtzaphell Slack.
Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (*Communicated by Louis Pierre Robert de Massy.*)	1130	21st April 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESSES, &c.—*continued.*			
Stamping on flatted or unflatted metals	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An improved construction of fastening for baling bands. (*Communicated by George Newton Beard.*)	1208	28th April 1866	Eleazar Judson Beard.
Compressing cotton or other light materials upon trucks or wagons, for transit upon railways or other roads	1273	4th May 1866	John Walker. Arthur Warner.
An improved method for packing up bottles	1313	8th May 1866	Jules Becker.
Compressing and packing cotton, wool, jute and other similar bulky articles.	1434	21st May 1866	James Templeton Wood.
Construction of hydraulic presses for the manufacture of sheet lead pipes, bars and window lead.	1482	28th May 1866	Henry Stuttle.
Improved machinery for gumming and printing envelopes and wrappers for letters, newspapers and small parcels. (*Communicated by Henry Clay Berlin and George Henry Jones.*)	1556	5th June 1866	William Edward Newton.
Improvements in cases for packing and transporting bottled ales and other liquors, and in the method of packing the same.	1678	23rd June 1866	Henry Gardner.
Improved machinery for manufacturing bricks	1770	4th July 1866	David Nichols. William Bradshaw Leachman.
An improved looking-glass press, including an incombustible strong box.	1800	9th July 1866	Pierre Joseph Bellot Sen.
Means or apparatus for effecting the "folding" and "papering" of woven fabrics	1849	14th July 1866	Joseph Sampson. Charles Sampson. Henry Sampson. Robert Burlison.
Machinery or apparatus for mixing and repacking tea, also applicable to the mixing of other granular substances.	1861	17th July 1866	William Thompson.
Construction of apparatus for mixing, pressing and moulding coal and other substances, for the formation of artificial fuel, and dividing the same into blocks, such apparatus being also applicable to other analogous operations.	1871	18th July 1866	David Barker.
Presses for printing the date or other particulars on railway and other tickets	2086	15th Aug. 1866	John Beeby Edmondson. James Carson.
An improved construction of bale fastening (*Communicated by Hazard Knowles and Henry Anwyl Jones.*)	2117	17th Aug. 1866	Alfred Vincent Newton.
Improvements in the construction of ordnance, partly applicable also to other purposes. (*cylinders of hydraulic presses.*)	2133	20th Aug. 1866	Walter Weldon.
An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood, straw and other fibrous material, for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloths and other fibrous and textile materials. (*Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Cotton.*)	2156	22nd Aug. 1866	George Haseltine.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESSES, &c.—*continued.*			
Machinery or apparatus for pressing bricks, tiles, corbels or other plastic work.	2195	25th Aug. 1866	Julius Frederick Moore Pollock.
An improved mode of and means for uniting and securing the ends of bands or hoops designed for baling cotton, wool and other substances -	2345	12th Sept. 1866	Solomon Woodall. Jacob Martin Van Winkle.
Boxes or cases for packing and exhibiting goods or articles of various kinds.	2370	14th Sept. 1866	Richard Couchman.
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
Improvements in the means of and apparatus for compressing and packing cotton, wool, jute and other similar bulky articles.	2487	26th Sept. 1866	James Templeton Wood.
An improved tie to be used in fastening bales of cotton and all merchandize to be packed and tied into bales. (*Communicated by Charles William Wailey.*)	2535	3rd Oct. 1866	Moses Paul Robertson.
Certain improvements in hydraulic presses -	2538	3rd Oct. 1866	Joseph Daniel.
Filtering presses for expressing the liquid parts and retaining the solid parts of any semi-liquid substances. (*Communicated by Pierre du Rieux and Edouard Roettger.*)	2602	9th Oct. 1866	Edward Thomas Hughes.
Certain improvements in the manner of papering needles, and in wrappers or envelopes for the same.	2638	12th Oct. 1866	David Evans.
Improvements in means or apparatus for smoothing, pressing, finishing or ironing fabrics, part of which improvements is also applicable to heating rollers used in calendering and finishing fabrics.	2664	15th Oct. 1866	David Gilson.
Improvements in machinery or apparatus for raising or elevating sewage water and other liquid matters, also applicable as a means of affording motive-power from water. (*for hydraulic presses.*)	2675	16th Oct. 1866	Thomas Woodward.
An improved fastening for baling bands - - (*Communicated by Robert Dillon.*)	2726	22nd Oct. 1866	Alfred Vincent Newton.
An improved metallic band fastener - - (*Communicated by Arthur Barbarin.*)	2790	29th Oct. 1866	John Henry Johnson.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes.	2792	29th Oct. 1866	Ralph Hart Tweddell.
Improvements in packing needles, and in papering needles or making up needles for sale.	2835	1st Nov. 1866	Maurice Pollack.
Pump valves, stop and let off cocks or valves, especially adapted for hydraulic presses and high-water pressure. (*Communicated by George Brunton.*)	2883	6th Nov. 1866	Charles James Robinson.
Connecting together the ends of iron or other metal bands used in baling cotton, wool and other bale goods packed under pressure.	2991	15th Nov. 1866	Henry Lampson.
Improvements in drying tan and in the machinery or apparatus employed for that purpose. (*cylinder press.*) (*Communicated by Laurent Bréval.*)	3042	20th Nov. 1866	Charles Denton Abel.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRESSES, &c.—*continued.*			
Improved machinery for making cast steel railway wheels and other castings in metal. (*subjecting to hydrostatic pressure.*) (*Communicated by John Blake Tarr.*)	3123	27th Nov. 1866	Alfred Vincent Newton.
Connecting or fastening the ends of iron and other metal bands surrounding bales of cotton and other like packages. (*Communicated by Samuel Boyd.*)	3284	8th Dec. 1866	Henry Charles Lucy.
An improved fastening for baling bands - -	3335	19th Dec. 1866	Samuel Wilson.
Means or apparatus employed in "beading" the "uppers" of boots and shoes and other articles.	3343	20th Dec. 1866	William Chapman.
Certain improvements in making metallic hoops - (*for bale goods.*)	3374	22nd Dec. 1866	Andrew Shanks.
An improved safety bottle case - - -	3400	27th Dec. 1866	Bentley Shaw. John Appleyard.
PRINTING AND TRANSFERRING; TYPE AND OTHER SURFACES FOR PRINTING; COMPOSING AND DISTRIBUTING TYPE.			
Type distributing and composing machines -	16	2nd Jan. 1866	Arthur Young. William Young.
Printing presses, known as copper plate presses -	51	6th Jan. 1866	Henry Haley Collins.
Improvements in printing and in apparatus employed therein.	73	9th Jan. 1866	Alfred Leighton.
An improved method of and apparatus for finishing impressions (in colored gelatine or other soluble material) obtained from metallic or other plates produced by the aid of photography - -	105	12th Jan. 1866	Walter Bentley Woodbury. George Davies.
Printing woven fabrics and other materials or substances. (*Communicated by Antoine Alexandre Pelaz.*)	151	16th Jan. 1866	Michael Henry.
Lithographic presses - - - - -	171	18th Jan. 1866	Frederick Cole.
Printing yarns - - - - - -	210	22nd Jan. 1866	John Stringer. George Birch.
Mode of and apparatus for printing from intaglio plates.	239	24th Jan. 1866	Joseph Wilson Swan.
Typographic printing apparatus - - - (*Communicated by Alexandre Yves Gaveaux.*)	243	24th Jan. 1866	William Clark.
Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics - - (*see* "PAINTING.")	278	29th Jan. 1866	William Hersee. George Smyth.
Producing printing surfaces by the aid of photography.	324	2nd Feb. 1866	David Winstanley Junr.
Certain improvements in the ornamentation of silk and satin fabrics.	387	8th Feb. 1866	Richard Edwin Higson.
Printing machines - - - - -	393	8th Feb. 1866	William Rock.
Printing machines - - - - - -	440	12th Feb. 1866	Augustus Applegath.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRINTING, &c.—*continued.*			
Production of copper or other metallic plates for the purpose of printing therefrom. (*Communicated by Francis Kossuth and Louis Theodore Kossuth.*)	449	13th Feb. 1866	Charles Gilpin, M.P.
Certain improvements in printing designs on paper for hangings, coverings, sun blinds and other purposes.	467	14th Feb. 1866	Robert Smith.
Bleaching, dyeing, printing and sizing cotton and other yarns or threads.	468	14th Feb. 1866	James Barlow.
Improvements in photography, and in the process of producing printing surfaces and other like surfaces by the aid of photographic agency. (*Communicated by the Chevalier Henry Avet.*)	469	14th Feb. 1866	Michael Henry.
Printing machines - - - - -	481	15th Feb. 1866	Augustus Applegath.
An improved method of printing - - -	496	16th Feb. 1866	Paul Emile Placet.
Producing ornamental designs in color upon woollen, silk, cotton and other fabrics.	511	17th Feb. 1866	Joseph Greenhalgh.
Apparatus for tempering saws and other articles capable of being tempered between two heated surfaces. (*doctor-blades.*)	562	23rd Feb. 1866	James Dodge.
Machinery for grinding and equalizing the thickness of lithographic stones.	634	1st March 1866	William Conisbee.
Machines used for lithographic printing - -	724	9th March 1866	James Marr.
Dyeing and printing textile fabrics or yarns -	793	17th March 1866	William Dancer.
Pictures obtained upon paper, glass, porcelain or other surfaces, with transparent or semi-transparent materials.	797	17th March 1866	Robert Howe Ashton.
Production of blocks and plates for printing -	887	26th March 1866	James Ramage. Thomas Nelson.
Dyeing and printing textile fabrics and yarns -	897	27th March 1866	James Higgin.
An improved system of consecutively numbering checks, and "making up" or binding check books when so numbered.	988	6th April 1866	James Fraser.
Machinery for engraving and etching rollers and other surfaces - - - - -	1019	10th April 1866	Robert Leake. William Shields. Joseph Beckett.
A new or improved mode of printing patterns on dyed silks and all kinds of dyed goods. (*Communicated by Pierre Courmons.*)	1063	14th April 1866	Richard Brabason Legge.
Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper. (*for engravings, &c.*)	1153	24th April 1866	Rachel Stackhouse.
Printing and dyeing textile fabrics and yarns -	1174	26th April 1866	Alfred Paraf.
Printing and finishing all materials where ultramarine colors are used.	1176	26th April 1866	Alfred Paraf.
New or improved machinery for making impressions or forming moulds for stereotype or electrotype plates.	1186	27th April 1866	Mortimer Nelson.
Production of printing and other surfaces in relief or intaglio.	1334	9th May 1866	Duncan Campbell Dallas.
An improved method of obtaining surfaces for printing from stereotyping and electrotyping.	1380	15th May 1866	James Cheverton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRINTING, &c.—*continued.*			
Manufacture of paper hangings	1447	23rd May 1866	Paul Marie Balin.
Improvements in the moulds or matrices of stereotype plates and in machinery for forming the same. (*Communicated by John Edson Sweet.*)	1448	23rd May 1866	George Haseltine.
Machinery for setting or composing and distributing printing-types.	1496	29th May 1866	Isidore Delcambre.
Dyeing, printing and other operations based on chemical reactions. (*Communicated by Mathias Paraf-Javal.*)	1537	2nd June 1866	Alfred Paraf.
Improved machinery for gumming and printing envelopes and wrappers for letters, newspapers and small parcels. (*Communicated by Henry Clay Berlin and George Henry Jones.*)	1556	5th June 1866	William Edward Newton.
Fixing coloring matters on textile fabrics, yarns or other materials.	1642	19th June 1866	Alfred Paraf.
Certain new and useful improvements in machinery for printing surfaces or cancelling revenue or other stamps.	1683	23rd June 1866	Thomas Smith Hudson.
Printing on woven fabrics	1704	26th June 1866	St Cyr Radisson.
Photographic printing	1786	6th July 1866	Lorenzo Field.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials.	1898	21st July 1866	Edward Tomlinson.
An improved method of and apparatus for printing from metal intaglios (obtained by the aid of photography) in gelatinous or other semi-transparent ink.	1918	24th July 1866	Walter Bentley Woodbury.
An improved mode of and apparatus for printing on glass and other materials. (*Communicated by Isaac Lewis Miles.*)	2040	8th Aug. 1866	George Davies.
Improvements in machinery for manufacturing envelopes, partly also applicable to other purposes. (*applicable to printing presses.*) (*Communicated by Edwin Allen and John Turner.*)	2056	9th Aug. 1866	Alfred Vincent Newton.
Certain improvements in stamps for producing impressions, which are also applicable to cylinder printing (*Communicated by Jabez Elverson.*)	2063	11th Aug. 1866	James Collins. Andrew Dwight Campbell.
Presses for printing the date or other particulars on railway and other tickets	2086	15th Aug. 1866	John Beeby Edmondson. James Carson.
Use and application of an inorganic glyceric ether (*as a fixing agent.*)	2115	17th Aug. 1866	Alfred Paraf.
An improved inking apparatus for printing in colors (*Communicated by John Knox Lowe.*)	2138	20th Aug. 1866	George Haseltine.
Treating and purifying water (*from print works.*)	2218	28th Aug. 1866	Robert Irvine.
Perfecting or ornamenting lace and other like fabrics, and also in imitations of the same. (*Communicated by Auguste Pascal and Felix Varenne.*)	2220	28th Aug. 1866	William Clark.
An improvement in certain textile fabrics	2249	1st Sept. 1866	John Oates Greenwood.
Certain improvements in machinery or apparatus for "composing" or "setting" type.	2303	7th Sept. 1866	Alexander Mackie.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRINTING, &c.—*continued.*			
Printing machines - - - - (*Communicated by George Gordon.*)	2403	19th Sept. 1866	Henry Smith Cropper.
A new and improved machine for setting and distributing types. (*Communicated by John Abercrombie Gray and Samuel Worcester Green.*)	2425	21st Sept. 1866	William Clark.
An improved machine for printing dates on railway tickets and for other like purposes.	2455	24th Sept. 1866	George Adams.
Apparatus employed in printing and folding paper hangings and woven fabrics.	2463	25th Sept. 1866	James Barker.
Improvements in the manufacture of lozenges, and of Pomfret or liquorice cakes and other similar articles of confectionery, and in apparatus for the same - - - - -	2512	28th Sept. 1866	William Wood. James William Wood.
Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Émile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Instruments for marking or impressing railway tickets and for other like purposes.	2545	3rd Oct. 1866	Russell Mortimer.
Cutting out of boots, shoes and gaiters of all kinds (*printing outlines.*) (*Communicated by Camille Mouchonay-Sirand.*)	2600	9th Oct. 1866	William Edward Gedge.
Manufacture of printing rollers or cylinders -	2615	9th Oct. 1866	Edward Peyton.
An improved type setting machine - - - (*Communicated by Augustus Corey and John M'Mullin Harper.*)	2704	19th Oct. 1866	George Davies.
Stamping or printing machines - - -	2717	20th Oct. 1866	Thomas Horby.
A new or improved method of printing or applying designs in relief and brilliancy to all kinds of fabrics.	2719	22nd Oct. 1866	Francois Petitdidier.
Machines for composing and printing - - (*Communicated by Thomas Hall.*)	2770	26th Oct. 1866	Nathaniel Hubbard Loomis.
Lithographic, zincographic and typographic printing machines - - - -	2803	30th Oct. 1866	Charles Henry Gardner. Joseph Bickerton.
Mounts for cartes de visite and playing cards -	2864	5th Nov. 1866	Henry Medd.
Printing textile fabrics or yarns - - -	2872	6th Nov. 1866	Augustus Grote.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes.	2937	10th Nov. 1866	Gustave Josse.
Lace fabrics - - - - - - (*printing designs.*) (*Communicated by Auguste Pascal and Felix Varenne.*)	2945	10th Nov. 1866	William George Edward Swinnock.
A new composition applicable to rollers for calico printing and to other purposes.	2955	12th Nov. 1866	George Fredrick Freeman.
Improvements in the method and means of cleansing textile and other fabrics and materials, also in the method and means of cleansing and preparing textile and other fabrics and materials to be dyed, or printed and dyed.	2967	13th Nov. 1866	William Stevenson Macdonald.
Machinery for carving wood, metal, marble or other material, to the shape of a pattern. (*letters.*)	2975	13th Nov. 1866	William Walker Marston.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PRINTING, &c.—*continued.*			
Apparatus for marking or impressing railway and other tickets.	3000	15th Nov. 1866	John Kemble.
A chemical decoration on gold, silver and other similar metals, and colours on porcelain, glass-wares, crystal-wares, delft-wares, potters' wares and similar matters, called 'Grüne's proceeding.	3002	15th Nov. 1866	Wilhelm Grüne.
Coverings for floors - - - - - (*printing or colouring burlap.*) (*Communicated by James Hawthorne Spencer.*)	3007	16th Nov. 1866	John Henry Johnson.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*printing rollers.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Preparation of printing surfaces by the aid of photography.	3113	26th Nov. 1866	Robert Henelade Courtenay.
An improved pterotype or machine for writing with type. (*see* "COPYING.")	3163	1st Dec. 1866	John Pratt.
Printing machines - - - - -	3196	5th Dec. 1866	Robert Harrild. Horton Harrild.
Photographic pressure frames - - -	3221	6th Dec. 1866	Farindon Lane.
Improvements in machinery for printing and cutting into sheets rolls of paper, and for collecting sheets so cut, also in the manufacture of stereotype printing surfaces - -	3222	6th Dec. 1866	John Cameron Mac Donald. Joseph Calverley.
Certain improvements in machinery or apparatus to be employed in printing paper, calico or other surfaces - - - - -	3227	7th Dec. 1866	Jesse Lowe. Peter Lowe.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - -	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*for use in calico printing.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
Apparatus and material for ornamental painting, graining, marbling and such like purposes. (*printing roller.*)	3330	18th Dec. 1866	Thomas Titterington.
Cylindrical printing presses - - - (*Communicated by Louis Théodore Verney.*)	3331	19th Dec. 1866	George Davies.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects. (*stamping or printing.*)	3341	20th Dec. 1866	Walter Gilbey.
Producing printing surfaces and carvings from moulds obtained by the aid of photography.	3393	24th Dec. 1866	Robert Howe Ashton.
Certain improvements in apparatus for distributing type and in apparatus for preparing type for distribution.	3396	26th Dec. 1866	Alexander Mackie.

For engraving cylinders, *see* "ENGRAVING."
For telegraphic printing, *see* "TELEGRAPHS."
For printing-colours, *see* "DYES."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, DRIVING, WORKING; TRANSMITTING POWER AND MOTION; CONVERTING MOVEMENTS.			
I.—Propelling Ships; Locomotion on Water; Propellers, Paddle-wheels and Screws.			
Screw propellers	17	3rd Jan. 1866	Hermann Hirsch.
Improvements in towing boats on rivers or canals, a part of which improvements is also applicable to the traction of vehicles on rail or tramways or common roads.	50	6th Jan. 1866	Baron Oscar de Mesnil.
Improvements in propelling ships, vessels and boats, and in the apparatus connected therewith.	126	15th Jan. 1866	John Hamilton.
Propellers for propelling ships	212	22nd Jan. 1866	Henry Harrington.
Construction of steam vessels (*Communicated by Henry Randall.*)	256	26th Jan. 1866	John Henry Johnson.
Mode of and apparatus for compressing air or aëriform fluids for the generation of motive-power and other purposes. (*for propelling ships.*) (*Communicated by Nicolas de Telescheff.*)	267	27th Jan. 1866	Marc Antoine François Mennons.
Means of and apparatus for steering, manœuvering and propelling ships or vessels.	270	27th Jan. 1866	James Howden.
Hydraulic machinery (*for propelling by sea.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Propelling and steering vessels	354	5th Feb. 1866	Daniel Spink.
Manufacture of wheels for vehicles, railway rolling stock, the propulsion of vessels and other purposes.	409	9th Feb. 1866	George Fitzjames Russell.
Screw propellers	460	14th Feb. 1866	Henry Burgess Young.
Machinery or apparatus for propelling ships or vessels by hydraulic pressure.	530	20th Feb. 1866	Henry Spink Swift.
Steam vessels (*Communicated by David Fernando Masnata.*)	638	2nd March 1866	William Clark.
Construction of side propellers for navigable vessels	721	9th March 1866	Edward Forster.
Paddle-wheels for propelling vessels (*Communicated by Addison Calvin Fletcher.*)	728	9th March 1866	William Edward Newton.
An improved submarine and torpedo boat	766	14th March 1866	Scovil Sturgis Merriam.
A new compound applicable to the lining or covering of bearings, steps, axle boxes, journals and other frictional parts of machinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.	813	19th March 1866	Charles Stanley Osborne.
Rotary pumps	982	5th April 1866	William Henry Phillips.
A new or improved vertically floated paddle wheel	1012	9th April 1866	Ivie Mackie MacGeorge. Samuel MacGeorge.
An improved method of and apparatus for propelling ships or vessels.	1216	30th April 1866	William Jeremiah Murphy.
Drawing or propelling boats, barges, rafts and other similar structures, on canals, rivers and such like waters. (*Communicated by Greenleaf Stackpole.*)	1284	5th May 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Improvements in apparatus for propelling and steering ships, partly applicable to the transmission of motive-power. (*Communicated by Jean Pierre Victor Le Rouge.*)	1311	8th May 1866	John Henry Johnson.
Apparatus for propelling and steering steam vessels	1415	18th May 1866	Robert Griffiths. Arthur Rigg junr.
Improvements in propelling vessels by the reaction of water, and in the machinery for the purpose.	1497	29th May 1866	Richard Boyman Boyman.
A new or improved apparatus for propelling boats and vessels.	1509	30th May 1866	George Palmer Evelyn.
A new or improved means of propelling vessels -	1538	2nd June 1866	Thomas Neville. William Gorton.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	1822	11th July 1866	Robert William Fraser.
Improvements in pumps and in adapting them for propelling vessels and for other purposes -	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Propelling ships and other navigable vessels -	2157	22nd Aug. 1866	George Carter.
Preventing the fouling by and clearing ships' propellers from ropes.	2217	28th Aug. 1866	Richard Harvey Hudson.
Apparatus for propelling and steering vessels - (*Communicated by Joseph Athanase Ganeval.*)	2237	30th Aug. 1866	William Clark.
Apparatus for employing the motive-power of jets of fluid. (*propelling ships.*)	2489	26th Sept. 1866	Matthew Piers Watt Boulton.
An improved means for producing motive-power and the machinery or apparatus employed therefor.	2508	28th Sept. 1866	John Stuart Johnstone.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Propelling and steering ships and vessels - (*Communicated by John Stanworth Martin and John Frederick Droop.*)	2724	22nd Oct. 1866	John Henry Johnson.
Apparatus for employing the motive-power of jets of fluid.	2809	30th Oct. 1866	Matthew Piers Watt Boulton.
An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (*Communicated by Urbain André Chauveau and Henri Marie Joseph Le Nepvou de Carfort.*)	2971	13th Nov. 1866	Clinton Edgcumbe Brooman.
Machinery used in propelling vessels - -	2998	15th Nov. 1866	Edward Humphrys.
Steam-engines and propellers for propelling vessels	3032	19th Nov. 1866	Cortland Herbert Simpson.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels.	3139	29th Nov. 1866	Edward Hughes.
Arrangements for applying auxiliary power to sailing ships.	3210	6th Dec. 1866	Robert Duncan.
Means employed for propelling, steering and manœuvering vessels, ships, boats and other navigable bodies.	3219	6th Dec. 1866	George Henry Phipps.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Apparatus for propelling vessels - - - (*Communicated by Samuel Arnold Samuelson.*)	3233	7th Dec. 1866	Carl Erik Samuelson.
Improvements in applying jets of steam, by action and reaction, to propel vessels and aërial conveyances, with other improvements in the latter and in the machinery for both, parts of which are applicable for other hydro and aëro purposes.	3262	12th Dec. 1866	Richard Boyman Boyman.
Apparatus for propelling vessels - - -	3295	15th Dec. 1866	Charles Randolph.
Improved locomotive machinery or apparatus working without the aid of steam. (*Communicated by Auguste Chenille.*)	3344	20th Dec. 1866	William Edward Gedge.
Method of and apparatus for propelling vessels . -	3364	21st Dec. 1866	William Horatio Harfield.
II.—Propelling Carriages; Locomotion on Land.			
Improvements in towing boats in rivers or canals, a part of which improvements is also applicable to the traction of vehicles on rail or tramways or common roads.	50	6th Jan. 1866	Baron Oscar de Mesnil.
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - - - (*drawing railway trucks.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Means and apparatus of communicating motion or power from the engine of a train to any part of a train.	289	30th Jan. 1866	Henry Shaw.
Obtaining adhesion of the driving wheels of locomotive engines to the rails of railways.	326	2nd Feb. 1866	Charles Herbert Holt.
Apparatus for propelling railway carriages upon inclines. (*Communicated by Theophile Joseph Finet.*)	851	22nd March 1866	Henry Edward Newton.
Improvements in railways, and in propelling carriages and vessels by means of ropes or chains. (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Improvements in overhead railways, and in machinery for moving, turning and weighing goods, wagons, carriages and engines for railway and other purposes.	1676	23rd June 1866	Thomas Deakin.
Improvements in the construction and mode of propulsion of locomotive carriages, and in apparatus to be used in connection therewith.	2551	4th Oct. 1866	John William Daniell.
Improved locomotive machinery or apparatus working without the aid of steam. (*Communicated by Auguste Chenille.*)	3344	20th Dec. 1866	William Edward Gedge.
III.—Driving Machinery, Ploughs and Pumps; Feed Motions, Guides, Adjustments and Traversers; Transmitting Power and Motion; Cranks and Gearing.			
Machinery and apparatus for charging blast and other furnaces. (*actuating the mouth closing disk.*)	6	1st Jan. 1866	William Barningham.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Machinery for rolling hoops or tyres for wheels or other purposes.	30	4th Jan. 1866	Thomas Edward Vickers.
Improvements in the manufacture of augers, and in the tools or instruments to be used in such manufacture. (*Communicated by Russell Jennings.*)	32	4th Jan. 1866	William Edward Newton.
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials. (*feed apparatus.*)	39	5th Jan. 1866	James Ronald.
Sewing-machines - - - - -	61	9th Jan. 1866	William Stuart Guiness.
An improved nail and brad cutting machine -	74	10th Jan. 1866	John Sadler.
Apparatus for brushing the hair of man and animals.	79	10th Jan. 1866	Charles Turner.
Apparatus used in getting coal - - -	94	11th Jan. 1866	Charles Bartholomew.
Manufacture of toothed wheels for gearing shafts, axles and spindles.	95	11th Jan. 1866	Robert Mathers.
Machinery for sewing - - - -	132	15th Jan. 1866	Albert Francis Johnson.
A new or improved instrument or apparatus for giving motion to hand and other fans.	174	19th Jan. 1866	Alfred Bennett.
Certain improvements in carding-engines - -	201	22nd Jan. 1866	Jonathan Dearden. Edward Pilkington Holden.
Construction of sewing-machines - - -	209	22nd Jan. 1866	George Baldwin Woodruff
Printing yarns - - - - - -	210	22nd Jan. 1866	John Stringer. George Birch.
Mode of producing mechanical motion - - (*Communicated by Henry Smith.*)	220	23rd Jan. 1866	William Brookes.
Certain improvements in machinery or apparatus to be employed in preparing cotton and other fibrous substances for spinning - - -	230	24th Jan. 1866	William Dore. John Tapley. Joseph Cordwell.
Machinery for crushing and pulverizing ores and other hard substances. (*adjusting.*)	241	24th Jan. 1866	James Jones.
Typographic printing apparatus - - - (*Communicated by Alexandre Yves Gaveaux.*)	243	24th Jan. 1866	William Clark.
An improved feed motion for sewing-machines -	247	25th Jan. 1866	William Winter.
Machinery for the manufacture of asphalted felt - (*guides.*) (*Communicated by Antoine d'Azambuja.*)	262	26th Jan. 1866	Richard Archibald Brooman.
Differential screw apparatus - - - (*Communicated by François Durand and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Machinery for crushing quartz, ores and other substances. (*Communicated by Abraham Karnes.*)	275	27th Jan. 1866	August Bryant Childs.
Hydraulic machinery - - - - (*for propelling machinery.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes.	286	29th Jan. 1866	James Robertson.

Subject-matter of Patent.	Number of Patent.	Date	Name of Patentee.
PROPELLING, &c.—*continued.*			
Improvements in the manufacture of files by means of machinery for smoothing and cutting them.	288	30th Jan. 1866	Jörgen Balthazar Dalhoff.
Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts - - - -	293	30th Jan. 1866	Samuel Bradley Ardrey. Samuel Beckett. Walton Smith.
Apparatus for embossing in colours on paper, envelopes or other articles. (*adjustable supply apparatus.*)	296	30th Jan. 1866	John Ingram.
Sewing-machines - - - - - -	331	2nd Feb. 1866	George Barker. Charles Davis.
Improved machinery for breaking hemp and flax. (*Communicated by Joseph Holford Siddall.*)	333	2nd Feb. 1866	Alfred Vincent Newton.
Mules for spinning and doubling - - -	335	3rd Feb. 1866	John Warburton. Peter Warburton. Smith Barnes.
Motive-power - - - - - - (*transmitting motion.*)	359	6th Feb. 1866	Vincent Rastouin.
Certain improvements in reaping and mowing machines - - - - - - (*imparting reciprocating movement.*)	368	7th Feb. 1866	Reubin Sims. John Beard. Robert Burns.
An improved construction of clutch for driving machinery.	406	9th Feb. 1866	William Clissold.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - -	417	10th Feb. 1866	John Binns. William Binns.
Improvements in the manufacture of horse nails and in apparatus employed therein.	426	10th Feb. 1866	John Huggett.
Improved mechanism for working apparatus for hoisting and pressing. (*Communicated by Dennis Frisbee.*)	476	15th Feb. 1866	Edward Thomas Hughes.
Improvements in machinery or apparatus for cutting coal and other minerals, and in the means for driving or actuating the same.	477	15th Feb. 1866	Joseph Rothery.
Machinery for rolling wire and wire rods - - (*adjusting the rollers.*)	485	15th Feb. 1866	George Bedson.
Improvements in or additions to sewing-machines -	495	16th Feb. 1866	John Paterson.
Mechanism for converting rotary motion into reciprocating motion - - - - -	508	17th Feb. 1866	Henry Willis. George Rice.
Certain improvements in the method of and means for communicating with and transmitting power from place to place.	521	20th Feb. 1866	Alfred Moore.
A double action harvesting and mowing-machine -	528	20th Feb. 1866	William Mirabeau Wells.
Driving "jiggers," laths and throwing-wheels used by potters.	547	22nd Feb. 1866	Elias Leak.
Machinery for cultivating land - - -	567	23rd Feb. 1866	Nicholas Fisher.
Machines for washing wool and other fibrous materials.	577	24th Feb. 1866	John Petrie, jun^{r}.
Application of power in actuating rolls in rolling metals - - - - - - -	579	24th Feb. 1866	Frederick Charles Winby. Clifford Etches Winby.
Applying motive-power to sewing-machines for the purpose of rendering them self-acting.	600	27th Feb. 1866	Geminiano Zanni.
An improved apparatus for holding and driving cutting and other tools.	604	27th Feb. 1866	Frederick Morton Eden.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Machinery for grinding and equalizing the thickness of lithographic stones.	634	1st March 1866	William Conisbee.
Chaff cutting machines - - - - -	639	2nd March 1866	Edmund Winder Otway.
Apparatus for calendering, mangling or finishing -	643	3rd March 1866	Robert Walker.
Rose engines - - - - - - (*Communicated by Anton Schwitter and Lewis Schwitter.*)	653	3rd March 1866	William Clark.
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*Communicated by Robert Creuzbaur.*)	657	3rd March 1866	John Bischoff.
Steam hammers - - - - - -	668	5th March 1866	William Henry Berry.
Machinery for preparing fibrous materials, commonly called slubbing, intermediate and roving frames.	758	13th March 1866	Leonard Kaberry.
Apparatus for ironing and finishing linen and other fabrics. (*Communicated by James Lyall and William Lyall.*)	765	14th March 1866	William Clark.
Sewing-machines - - - - - -	788	16th March 1866	Altham Pilling.
Machinery for mining and working coal, minerals, stone and other earthy matters - - -	807	19th March 1866	Edward Beacher. John Gillott.
Machinery for spinning and doubling - - (*Communicated by Heinrich Zwanziger and William Henry Rhodes.*)	815	20th March 1866	Henry Bernoulli Barlow.
Certain improvements in self-acting mules for spinning. (*Communicated by Paul Sée and Louis Couvreur.*)	831	21st March 1866	Louis Rudolph Bodmer.
Improved means or apparatus for cutting coals and other minerals.	832	21st March 1866	Samuel Dalby.
Jacquard looms for weaving cut pile fabrics double. (*Communicated by Anton Funk, Carl Emile Becker and August Hoffbauer.*)	846	22nd March 1866	Charles Denton Abel.
Hoisting apparatus - - - - - (*Communicated by Samuel Munson Longley and Andrew Conkey Getty.*)	874	24th March 1866	Alfred Vincent Newton.
Apparatus for decorticating rice and other grain - (*Communicated by Edmond Théodore Ganneron.*)	917	29th March 1866	Henry Edward Newton.
Apparatus for rotary brushing and rubbing -	939	2nd April 1866	Charles Turner.
Apparatus for cutting cork - - - - (*Communicated by Louis Sauvan.*)	963	4th April 1866	Michael Henry.
Machinery for engraving and etching rollers and other surfaces - - - - - -	1019	10th April 1866	Robert Leake. William Shields. Joseph Beckett.
Machinery for breaking stones and crushing ores and other substances.	1028	11th April 1866	James Frost.
Improvements in machinery or apparatus for shaking, riddling, raising and delivering straw, hay, corn and other like agricultural produce, and in the mode of driving or transmitting motion thereto, parts of which improvements are applicable to the driving or transmitting of motion to other machinery - - - - - -	1072	16th April 1866	James Hayes the elder. Josiah Hayes. James Hayes the younger.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Machinery employed in cutting and getting coals and other minerals.	1091	18th April 1866	James Grafton Jones.
Improvements in reaping-machines, which improvements are also applicable to other agricultural implements in which chains are used for communicating motion - - - -	1096	19th April 1866	Edward Lord. Richard Norfolk.
Improved machinery for warping or preparing warps for weaving.	1103	19th April 1866	Archibald Turner.
A new wheel pinion for riggers' driving operators -	1125	20th April 1866	Frederick Ruppert.
Machinery or apparatus for breaking and scutching flax and hemp. (*Communicated by Baron Waldemar von Loewis.*)	1149	23rd April 1866	Charles Denton Abel.
Machinery for making twist drills - - - (*Communicated by Andrew Reynolds Arnold.*)	1164	25th April 1866	William Clark.
An improved mode of working steam tilling implements - - - - -	1192	27th April 1866	James Howard. Edward Tenney Bousfield.
Looms for weaving - - - -	1222	1st May 1866	Henry Lea.
Apparatus for getting or cutting minerals - -	1224	1st May 1866	John Nisbet.
Certain improvements in sewing-machines -	1270	4th May 1866	Walker Bates Bartram.
Machinery for converting reciprocating into rotary motion. (*Communicated by Merrick Mortimer Barnes.*)	1277	4th May 1866	George Tomlinson Bousfield.
Improved machinery for holeing, cutting, getting and drilling coal or other minerals.	1299	7th May 1866	Edward Fidler.
Improvements in apparatus for propelling and steering ships, partly applicable to the transmission of motive-power. (*Communicated by Jean Pierre Victor Le Rouge.*)	1311	8th May 1866	John Henry Johnson.
Apparatus for treating metals, metallic ores and other mineral substances.	1350	11th May 1866	William Prosser.
Machinery for hammering cylinders and other articles of sheet metal - - - -	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Sewing-machines - - - -	1391	16th May 1866	Joseph Weatherby Bartlett.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Machinery for dressing silk - - -	1452	23rd May 1866	Thomas Greenwood.
Machinery for cutting files - - - - - (*Communicated by Aaron Chambers.*)	1507	30th May 1866	George Tomlinson Bousfield.
Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps -	1516	31st May 1866	Edward Taylor Bellhouse. William John Dorning.
Sawing machinery - - - - -	1519	31st May 1866	Josiah East.
Improved machinery for combing hemp, flax and other fibrous materials.	1543	2nd June 1866	Jules Lecoq.
Machinery for cutting corks and bungs - - (*Communicated by Charles Harris.*)	1549	4th June 1866	Corey M'Farland.
Improvements in the mode of and machinery for making hoes, trowels and other similar instruments.	1550	5th June 1866	Nathan Brand.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Machinery or apparatus for making envelopes and paper bags. (*Communicated by Robert Parks and John Armstrong.*)	1554	5th June 1866	John Henry Johnson.
Apparatus for raising and lowering weights -	1562	6th June 1866	John Loader.
Machinery for making bricks - - -	1581	8th June 1866	Charles Henry Murray.
Spinning-frames - - - - -	1588	11th June 1866	David Cochrane.
Certain improvements in carding-engines - -	1603	13th June 1866	Eric Hugo Waldenström. Thomas Wrigley.
Improved apparatus for cutting, grinding and polishing the bottoms of tumblers, wine glasses, decanters and other articles in glass. (*Communicated by Antoine Cuttier.*)	1673	22nd June 1866	Charles De Grelle.
Machinery for turning, shaping and cutting metal -	1677	23rd June 1866	Thomas Dunn.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances.	1687	25th June 1866	Edward Gerrard Fitton.
Certain improvements in machinery or apparatus for cutting files.	1715	27th June 1866	John Henshall.
Screens for screening grain and other substances -	1719	27th June 1866	William Wyatt.
Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (*Communicated by Eugéne Pierre Barrabé.*)	1724	28th June 1866	John Henry Johnson.
Locomotive traction engines - - -	1728	28th June 1866	Daniel Kinnear Clark, C.E.
Improvements in brick making machines, and in the machinery or apparatus for operating the same. (*Communicated by Isaac Gregg.*)	1739	29th June 1866	John Henry Johnson.
Locomotive and traction engines - - -	1757	2nd July 1866	Charles James Appleby.
Reaping and mowing-machines - - -	1761	3rd July 1866	Henry Tyerman.
Cotton gins - - - -	1769	3rd July 1866	George Frederick Starnes.
Sewing-machinery - - - - (*Communicated by James Alford House and Henry Alonzo House.*)	1779	5th July 1866	Alfred Vincent Newton.
Machinery or apparatus for sinking shafts or pits, and driving tunnels and galleries.	1784	5th July 1866	John Dickinson Brunton.
Machinery or apparatus for grinding and polishing circular saws and other articles.	1812	11th July 1866	Edward M'Nally.
Machinery or apparatus for facilitating the adjustment and testing the working parts of locomotive engines - - - - -	1830	12th July 1866	Joseph Ward. Joseph Smiles.
Steam travelling cranes - - -	1842	13th July 1866	Robert Roger.
Improvements in the means and apparatus employed in the manufacture of taper or conical and other forms of wrought iron and steel tubes, and in forming flanches thereon.	1868	18th July 1866	George Plant.
Improvements in sewing-machines, and in the devices used to impart motion to the same or to other machines. (*Communicated by Albin Warth and Eberhard Faber.*)	1880	19th July 1866	William Clark.
Machinery for condensing wool or other fibrous substances - - - - -	1882	19th July 1866	Samuel Longbottom. Thomas Shaw.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Sewing-machines - - - - (*Communicated by Charles Crosby and John Schenck.*)	1884	19th July 1866	Frederick Neidlinger.
Machinery for the manufacture of bolts and spikes and other similar articles.	1900	21st July 1866	Moses Bayliss.
Machinery for burnishing or polishing enamelled paper. (*Communicated by Edwin Blood.*)	1921	24th July 1866	William Edward Newton.
Machinery and apparatus for the manufacture of boots and shoes and other coverings for the feet - - - - - - -	1964	30th July 1866	Thomas Greenwood. William Keats.
Improved machinery for sharpening saws - -	1984	1st Aug. 1866	John Parry. Richard Morris.
Improvements in hammers and in mechanism used therewith - - - - - -	1986	1st Aug. 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.
Machinery for cutting dove-tail joints - - (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
Machinery or apparatus for staining or coating the surfaces of paper with color or other material - -	2005	3rd Aug. 1866	Thomas Campbell. Henry Coffey.
Machinery for forming the teeth of bevel wheels -	2010	3rd Aug. 1866	Peter Murray.
Winding apparatus - - - - -	2013	4th Aug. 1866	John Boyd.
Applying motive-power to saw frames - -	2044	8th Aug. 1866	John Robinson. John Smith.
Certain improvements in the construction and mode of working calenders and mangles used in finishing textile fabrics - - - -	2078	14th Aug. 1866	Robert Wilson. William Martin Junr.
Improvements in pumps and in adapting them for propelling vessels and for other purposes - - (*driving machinery.*)	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Certain new and useful improvements in sewing-machines. (*Communicated by William Chicken.*)	2112	17th Aug. 1866	Amos Lawrence Wood.
Machinery or apparatus for combing wool or other fibrous substances.	2128	18th Aug. 1866	Samuel Mortimer.
Machinery for making nails - - - - (*Communicated by The Excelsior Nail Company.*)	2144	21st Aug. 1866	William Edward Newton.
Machinery for preparing, straightening and combing fibrous materials.	2155	22nd Aug. 1866	William Tongue.
Gearing or apparatus for driving scrapers employed in cleansing the flues and tubes of boilers and heating apparatus.	2184	25th Aug. 1866	Edward Green.
Looms for weaving - - - - -	2186	25th Aug. 1866	Charles Richardson.
Machinery or apparatus for pressing bricks, tiles, corbels or other plastic work.	2195	25th Aug. 1866	Julius Frederick Moore Pollock.
Machinery for spinning flax and other like fibrous materials.	2275	4th Sept. 1866	George Lowry.
Reaping-machines - - - - -	2314	8th Sept. 1866	Charles Thomas Burgess.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
Horse hay rakes - - - - - (*Partly communicated by Daniel G. Adelsberger.*)	2358	14th Sept. 1866	Richard Robert Riches. Charles James Watts.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Improvements in machinery for grinding, stripping and cutting file blanks, part of which improvements is also applicable to grinding and polishing chisels, plane irons and other articles.	2385	17th Sept. 1866	James Dodge.
Machinery for turning or cutting and polishing screw nuts and other articles.	2392	18th Sept. 1866	John Thompson.
A new and improved machine for setting and distributing types. (*Communicated by John Abercrombie Gray and Samuel Worcester Green.*)	2425	21st Sept. 1866	William Clark.
Lace machinery - - - - - - (*Communicated by Désiré Sival and Léon Sival.*)	2461	25th Sept. 1866	Clinton Edgcumbe Brooman.
Apparatus employed in printing and folding paper hangings and woven fabrics.	2463	25th Sept. 1866	James Barker.
An improved bronzing machine - - - (*Communicated by John Knox Lowe.*)	2484	26th Sept. 1866	George Haseltine.
Apparatus for employing the motive-power of jets of fluid. (*driving machinery.*)	2489	26th Sept. 1866	Matthew Piers Watt Boulton.
Machinery or apparatus for the cutting of files or the formation or making of their teeth -	2490	26th Sept. 1866	Albert Francis Johnson. Moses Porter Griffin.
An improved means for producing motive-power and the machinery or apparatus employed therefor.	2508	28th Sept. 1866	John Stuart Johnstone.
Machinery for cutting files and rasps - - (*Communicated by Alfred Weed.*)	2548	3rd Oct. 1866	William Robert Lake.
Machinery or apparatus for spinning cotton and other fibrous materials.	2596	9th Oct. 1866	James Wood Baker.
Sewing-machines - - - - -	2617	10th Oct. 1866	James Warwick.
Machinery for spinning and doubling - -	2702	19th Oct. 1866	John Cresswell Brentall. Robert Edge.
Coal mining machinery - - - - -	2708	19th Oct. 1866	Charles Jones.
Machinery or apparatus to be used for excavating and mining.	2797	30th Oct. 1866	James Hunter.
Lathes - - - - - - -	2801	30th Oct. 1866	George Dacre.
Self-acting mules - - - - -	2814	31st Oct. 1866	William Robertson.
Sewing-machines - - - - -	2829	1st Nov. 1866	Thomas Henderson.
Saw mills - - - - - -	2837	1st Nov. 1866	William Geeves.
Hay and chaff cutting machines - - -	2845	2nd Nov. 1866	John Howell.
Machinery for cleansing and washing casks or barrels.	2846	3rd Nov. 1866	Osborne Cadwallader Edwards.
Improvements in puddling and in apparatus employed therein. (*Communicated by Pierre Adolphe Dormoy.*)	2866	5th Nov. 1866	Clinton Edgcumbe Brooman.
Apparatus for transmitting and controlling motion	2867	5th Nov. 1866	Robert Anthony Harlcastle.
Certain improvements in machinery or apparatus for rolling metals.	2895	7th Nov. 1866	Peter Kirk.
Reaping-machines - - - - - (*Communicated by Jacob William Schuckers.*)	2903	7th Nov. 1866	Alfred Vincent Newton.
Machines for spinning and doubling cotton and other fibrous materials - - - -	2941	10th Nov. 1866	Robert Lakin. John Wain.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.—*continued.*			
Machinery for cutting and heading nails - - (*Communicated by Jacob Russell, Henry Townsend M'Coun, James Lemuel Romer and Thomas Townsend Buckley.*)	2942	10th Nov. 1866	John Garrett Tongue.
Improvements in the manufacture of chains and in the machinery or apparatus employed therein. (*Communicated by Josiah Copley, the younger.*)	2943	10th Nov. 1866	John Henry Johnson.
File cutting machines - - - - - (*Communicated by Henry Comer William Hespenheide and Samuel Rose.*)	2944	10th Nov. 1866	John Henry Johnson.
An improved combined punching and eyelet machine. (*adjustable gauge.*) (*Communicated by William Sparks Thomson.*)	3004	16th Nov. 1866	Edward Drucker.
Spinning machinery - - - - - (*Communicated by Guillaume Joseph Snakers.*)	3010	16th Nov. 1866	Clinton Edgcumbe Brooman.
Construction of lathes - - - - -	3034	19th Nov. 1866	Thomas Greenwood.
Construction of reaping and mowing machines -	3050	20th Nov. 1866	James Howard. Edward Tenney Bousfield.
Machinery for drilling rocks - - - (*Communicated by Charles Burleigh.*)	3065	22nd Nov. 1866	George Haseltine.
Arranging and driving the shafting of "loom sheds."	3096	24th Nov. 1866	William Beckett Johnson.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*guide bars, moving the knife, &c.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.
Improvements in woolen and other yarn or twisted strands, and in the machinery or apparatus employed in treating the same. (*guiding during process of shearing.*) (*Communicated by Edward Tucker Cooper Lutton.*)	3115	27th Nov. 1866	John Henry Johnson.
Improved means and machinery for the manufacture of earthenware and other articles made from plastic materials - - - - (*traversing the moulds.*)	3120	27th Nov. 1866	John Henry Atterbury. Sydney Woolf.
Means or apparatus for driving wire-blocks - -	3138	29th Nov. 1866	George Crossley.
Construction of horse hoes - - - -	3150	30th Nov. 1866	William Wood Pilcher.
Machinery for the manufacture of elastic fabrics - (*driving braiding machines.*)	3151	30th Nov. 1866	Luke Turner.
Certain improvements in apparatus to be employed in the preparation and manufacture of cotton, wool, silk and other fibrous substances.	3157	1st Dec. 1866	William Crighton.
An improved pterotype or machine for writing with type. (*adjusting type plate.*)	3163	1st Dec. 1866	John Pratt.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PROPELLING, &c.— *continued.*			
Improvements in chain cable holders applicable for capstans and windlasses, and in apparatus for driving capstans.	3178	3rd Dec. 1866	William Horatio Harfield.
Improvements in mowing and reaping machines, partly applicable to carriages and other wheeled vehicles. (*Communicated by John Gould Perry.*)	3186	4th Dec. 1866	George Haseltine.
Looms for weaving	3190	4th Dec. 1866	Edward Louis Paraire.
Certain improvements in the manufacture of hats or coverings for the head, and in apparatus connected therewith	3193	5th Dec. 1866	Thomas Bayley. John Taylor.
Printing machines	3196	5th Dec. 1866	Robert Harrild. Horton Harrild.
Reaping and mowing machines	3220	6th Dec. 1866	Frederick William Turner.
Machines driven by human, animal or other power having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
An improved machine for pegging boots and shoes (*Communicated by Reuben Whitehouse Drew.*)	3237	8th Dec. 1866	George Haseltine.
Construction of ships' capstans	3240	8th Dec. 1866	William Henry Biggleston.
Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances.	3250	10th Dec. 1866	James Tolson.
Applying motive-power to saw frames	3267	12th Dec. 1866	John Robinson. John Smith.
Sewing and embroidering machines	3284	14th Dec. 1866	Leonard Lindley. Frederick Taylor.
Improvements in hammers and in mechanism used therewith	3297	15th Dec. 1866	Samuel Chatwood. John Sturgeon.
Cylindrical printing presses (*Communicated by Louis Théodore Verney.*)	3331	19th Dec. 1866	George Davies.
Means or apparatus employed in "beading" the "uppers" of boots and shoes and other articles.	3343	20th Dec. 1866	William Chapman.
Improved locomotive machinery or apparatus working without the aid of steam. (*Communicated by Auguste Chenille.*)	3344	20th Dec. 1866	William Edward Gedge.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
Machinery for winding yarn and thread	3362	21st Dec. 1866	Robert Hall. Samuel Standring Hall.
Construction of mowing and reaping machines (*Communicated by James Shorkley Marsh.*)	3368	21st Dec. 1866	James Howard.
An improved street sweeper	3417	29th Dec. 1866	William Smith.

For driving-bands, *see* "STRAPS."
For adjusting fire-arms, *see* "FIRE-ARMS."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PUMPS; PUMPING AND RAISING WATER AND OTHER LIQUIDS; PUMP PISTONS AND PACKINGS; SHIPS' PUMPS; TURBINES; BEER ENGINES.			
Machinery or apparatus worked by water for raising, lifting, lowering and drawing goods of every description - - - - - - (*raising materials from wells.*)	71	9th Jan. 1866	William Allen Turner. Thomas Townsend Coughin.
Pumping engines for feeding and forcing fluids -	175	19th Jan. 1866	James Shekleton. John William Gibson.
A new or improved force pump or garden engine -	196	22nd Jan. 1866	Charles Wyatt Orford.
Hydraulic machinery - - - - - (*for raising water.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
An improved apparatus for raising or forcing water by the aid of steam and air, for supplying locomotive tenders and for other purposes.	385	8th Feb. 1866	John Bowman Atwater.
Pumps - - - - - - - -	390	8th Feb. 1866	Robert Dawson Clegg. Didier Louis Nicolas-Daubisgnye.
An improved apparatus for raising water in shower baths. (*Communicated by Henry Wilson Lee.*)	392	8th Feb. 1866	John Gilbert Avery.
Apparatus for raising and discharging water or other liquids. (*pump and siphon.*)	435	12th Feb. 1866	Joshua Hargrave.
Improvements in the construction of or arrangements for removing water from the interiors of sea-going and other vessels, and in closing or stopping leaks in such vessels.	439	12th Feb. 1866	Frederic Pelham Warren.
Pumps for raising and forcing liquids - -	454	13th Feb. 1866	Joseph Beverley Fenby.
Construction of pumps - - - -	539	21st Feb. 1866	Henry Spink Swift.
Pump buckets for lifting water, air or other fluids -	558	23rd Feb. 1866	Jacob Goodfellow.
Improvements in hydraulic presses, partly applicable to pumps.	624	1st March 1866	Edward Cottam.
Improvements in raising or lifting and forcing water and other liquids, and in the apparatus or mechanism employed therefor.	630	1st March 1866	Hugh McPhail.
Pumps - - - - - - (*Communicated by Asker Burr.*)	719	9th March 1866	Edward Thomas Hughes.
Pumps - - - - - -	736	10th March 1866	Daniel Gallafent.
Force pumps - - - - -	787	16th March 1866	Thomas Joseph Reader.
Steam pumps - - - - - (*Communicated by Adam Scott Cameron.*)	853	22nd March 1866	William Clark.
Steam turbines - - - - -	891	27th March 1866	Carl Wenner.
Rotary pumps - - - - -	982	5th April 1866	William Henry Phillips.
Improvements in or applicable to that apparatus for raising and forcing fluids and feeding steam-boilers, known as Giffard's injector.	1055	13th April 1866	James Gresham.
Improved apparatus for ejecting water from the holds of steam ships or other vessels.	1142	23rd April 1866	Henry Alfred Huxley.
Engines worked by steam or other fluid - - - (*pump.*)	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PUMPS, &c.—*continued.*			
Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (*Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.*)	1282	5th May 1866	George Davies.
Improvements in apparatus applicable as a rotary engine, pump and water meter.	1286	5th May 1866	Augustus Lea Bricknell.
Rotary blowers - - - - - - (*or pumps.*) (*Communicated by Francis Marion Roots and Philander Highley Roots.*)	1333	9th May 1866	William Edward Newton.
Improvements in elevating and forcing water and other fluids, and in the machinery or apparatus connected therewith.	1346	10th May 1866	Julian Bernard.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water and for other mining purposes.	1401	17th May 1866	Julian Bernard.
An improved rotary engine to be used for pumping fluids or gases, or as a motive-power.	1402	17th May 1866	John Beale.
Machinery used in raising and forcing water and other fluids - - - - - -	1475	26th May 1866	David Thomson. William Porter.
Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps -	1516	31st May 1866	Edward Taylor Bellhouse. William John Dorning.
Improvements in engines for pumping water, applicable to engines for feeding steam-boilers.	1539	2nd June 1866	Andrew Betts Brown.
Pumps and fire-engines - - - - -	1566	6th June 1866	Hyde Bateman.
Valves for regulating feed, suction and other purposes - - - - - - - -	1584	9th June 1866	Jenkin Jones Ingram. George Richard Phillips.
Steam-engines - - - - - - (*for pumping.*)	1601	13th June 1866	George Dominicus Kittoe.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
An improved construction of rotary engine - (*or pump.*) (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets - - - - - - (*or water pumps.*)	1700	26th June 1866	William Buckley. Levi Smith.
Improvements in apparatus for raising and forcing water and other liquids, applicable to the ejection of bilge water from vessels, the filling of the tanks of locomotive tenders and other purposes. (*Communicated by Henry Seagur Lansdell.*)	1717	27th June 1866	William Edward Newton.
Apparatus for obtaining motive-power by means of steam. (*Communicated by Jules Claude Louis Charnoz.*)	1767	3rd July 1866	William Adolph.
Steam pumps - - - - - - (*Communicated by Henry S. Lansdell.*)	1839	12th July 1866	William Reade.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages. (*for pumping.*)	1957	28th July 1866	John Phillips-Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PUMPS, &c.—*continued.*			
Apparatus for raising aëriform and other fluids - (*Communicated by Jeremiah William Foard.*)	1997	2nd Aug. 1866	George Campbell.
A new soufflating accumulating pump or hydraulic engine.	2014	4th Aug. 1866	William Jackson.
Certain improvements in direct-acting steam pumps	2088	15th Aug. 1866	Robert James Worth.
Improvements in pumps and in adapting them for propelling vessels and for other purposes -	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Apparatus for raising liquids, particularly applicable to fountains.	2167	23rd Aug. 1866	Eugene Rimmel.
Improvements in valves for pumps, said improvements being also applicable to steam valves -	2248	31st Aug. 1866	Henry George Scott. Nathan Hallowell.
Improvements in fluid meters, also applicable to pumps and water pressure engines.	2434	21st Sept. 1866	John Mortimer Heppel.
Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (*Communicated by John Benjamin Root.*)	2466	25th Sept. 1866	Alfred Vincent Newton.
Steam pumps - - - - - (*Communicated by Oscar Theodore Earle.*)	2469	25th Sept. 1866	William Robert Lake.
Pumps for ships - - - - -	2474	25th Sept. 1866	Thomas Burton Taylor.
Machinery for raising water - - - (*Communicated by Guillaume Saint Romas.*)	2483	26th Sept. 1866	Henri Adrien Bonneville.
Improved mechanical contrivances applicable to syphons, also adaptable in the production of pumps of improved construction.	2556	4th Oct. 1866	John Ambrose Coffey.
Hoisting apparatus and cars for mining purposes - (*or raising water.*) (*Communicated by George Williams.*)	2578	6th Oct. 1866	William Clark.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Improvements in machinery or apparatus for raising or elevating sewage water and other liquid matters, also applicable as a means of affording motive-power from water.	2675	16th Oct. 1866	Thomas Woodward.
Packing for piston, valve, pump or other such rods or spindles.	2684	17th Oct. 1866	John Coates.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes. (*applicable to pumps.*)	2792	29th Oct. 1866	Ralph Hart Tweddall.
Pumps and pump air vessels - - -	2842	2nd Nov. 1866	Stephen Holman.
Pump valves, stop and let off cocks or valves, especially adapted for hydraulic presses and high-water pressure. (*Communicated by George Brunton.*)	2883	6th Nov. 1866	Charles James Robinson.
An improved apparatus for pumping or ventilating (*Communicated by Paschal Joseph Hognoul.*)	2927	10th Nov. 1866	Henri Adrien Bonneville.
Improvements in motive-power engines, parts of which are specially adapted for raising and forcing water and for other mining purposes.	3029	19th Nov. 1866	Julian Bernard.
Pumps and fire-engines - - - -	3149	30th Nov. 1866	Hyde Bateman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
PUMPS, &c.—*continued.*			
Improved apparatus for discharging bilge water from vessels' holds	3176	3rd Dec. 1866	August Hermann. Henry Brethauer.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids	3206	5th Dec. 1866	James Barwick. Samuel Tindall.
Pumps	3242	8th Dec. 1866	William Warren.
Turbines	3320	17th Dec. 1866	Frederick Nicholas Meixner.
Improvements in centrifugal pumps and in the joints or junctions of pipes and tubes. (*Communicated by Louis Coignard.*)	3336	19th Dec. 1866	Michael Henry.
Improved arrangements and apparatus for removing or transferring tar or similar materials from one place or receptacle to another.	3349	20th Dec. 1866	Edward Dorsett.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces. (*and for raising water.*)	3373	22nd Dec. 1866	Joseph Sloper.
Machinery for applying hydraulic power to mining and other purposes (*turbines.*)	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
Hydrostatic rotatory motive-power engines	3431	29th Dec. 1866	Burrowes Willcocks Arthur Sleigh.
PURSES AND FASTENINGS.			
Protectors for watches, portemonnaies and pocket books.	123	13th Jan. 1866	Henry Gottheimer.
Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles	1013	9th April 1866	William Rawlings. Wilhelmus Rest.
Clips or fastenings for the bands of purses and pocket books, and for other bands and for other like purposes.	2373	15th Sept. 1866	Thomas Newey.
Means of securing pocket books and other portable articles on the person. (*purses.*) (*Communicated by Theodore Neuscheller.*)	2504	27th Sept. 1866	Friedrich Wilhelm Constantin Dromtra.
Fastenings for purses, cigar cases, travelling bags and other similar articles. (*Communicated by Joseph Schoenfeld.*)	2579	6th Oct. 1866	William Clark.
Fastenings or couplings (*for portemonnaies.*) (*Communicated by Elie Emile Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Rags and Waste; Separating Fibres from Fabrics.			
Improvements in or applicable to machinery for combing, dressing and distintegrating hemp, flax, wool, cotton and other fibres and fibrous materials. (*rags.*)	39	5th Jan. 1866	James Ronald.
Improved machinery or apparatus for the manufacture of paper pulp.	140	15th Jan. 1866	Carl Heinrich Roeckner.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*obtaining fibres from rags.*)	265	26th Jan. 1866	Henry Sherwood.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*for washing waste.*)	667	5th March 1866	James Gray.
An improved process for recovering cotton waste and similar matters after they have been soiled in cleaning machinery or otherwise.	1010	9th April 1866	Felix Lievin Bauwens.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom.	1160	25th April 1866	John Watson Burton.
Treating printers' rags - - - -	1383	15th May 1866	Hugo Müller. Warren De la Rue.
Improvements in machinery for preparing and carding and in treating silk waste.	1727	28th June 1866	Samuel Cunliffe Lister.
Improvements in and apparatus for dressing or preparing for spinning hemp, flax, jute, manilla hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics into oakum, tow and paper stuff, dressing and cleaning "waste" tow, wool, hair and other like "waste" fibres.	1814	11th July 1866	William Walker.
Machinery for cutting rags, ropes and other articles for paper-making and other purposes -	2347	12th Sept. 1866	Enoch Harrison Aydon. Ebenzer Pocock.
Processes and machinery for producing fibres suitable for being spun, from rags or remnants of woven or other textile fabrics made of silk, wool, cotton or other fibrous materials.	2497	27th Sept. 1866	Henry Ernest Gilles.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
An improved explosive substance - - (*from rags.*)	3293	15th Dec. 1866	Frederic William Reeves. John Bell Muschamp.
Rag grinding machines - - - - (*Communicated by Joseph Maison.*)	3378	22nd Dec. 1866	Joseph Rhodes. William Sunderland Rhodes. Josiah Rhodes.
Apparatus for filtering or straining liquids, and for washing and wringing cloth, rags and similar textile and fibrous substances.	3380	22nd Dec. 1866	Charles James Wahab.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS AND RAILWAY CARRIAGES.			
I.—Permanent Way, Rails, Rail-joints, Chairs and Sleepers; Portable Railways, Atmospheric Railways, Tramways.			
Machinery and apparatus for charging blast and other furnaces. (*applying a train or railway.*)	6	1st Jan. 1866	William Barningham.
Fastenings for the permanent way of railways -	12	2nd Jan. 1866	Peter Schuyler Bruff.
Improvements in working and in the service of guns with fittings thereof, and in gun carriages. (*overhead railway.*)	43	5th Jan. 1866	Henry Duncan Preston Cunningham.
Wedges, keys or quoins for securing the rails of railways in their chairs. (*Communicated by Theodore Despiau.*)	82	10th Jan. 1866	John Clutton.
Apparatus for preventing accidents on railways -	149	16th Jan. 1866	William Lyne.
Machinery for making moulds for casting metals - (*railway chairs.*)	196	20th Jan. 1866	William Thomas the younger.
Manufacture of railway bars - - -	260	26th Jan. 1866	William Henry Barlow.
Certain improvements in the construction of railways.	287	30th Jan. 1866	John Berrie.
Improved apparatus or means for securing the safety of persons travelling by railway trains. (*see* "SIGNALS.")	304	31st Jan. 1866	Coleman Defries.
Pneumatic railways - - - -	376	7th Feb. 1866	Joseph Alexander Maxwell.
Manufacture of rails, bars and girders - - -	453	13th Feb. 1866	Samuel William Kelly.
Construction of railways - - - - (*Communicated by Asa Bigelow jun' and Swain Winkley.*)	575	24th Feb. 1866	George Haseltine.
An improved spike - - - - (*for railways.*) (*Communicated by Lewis Alexander Osborn.*)	631	1st March 1866	William Robert Lake.
Certain improvements in the construction of the permanent way of railways.	635	2nd March 1866	William Rogers.
Arranging or combining the wheels and trams or ways for carriages on common roads - -	877	24th March 1866	Thomas Johnston. Thomas Wilson Rennie.
Construction of sleepers or supports for the rails of railways and for other purposes.	1051	13th April 1866	Valentin Silvestre Fombuena.
Draining and consolidating cuttings, embankments and other parts of railways.	1175	26th April 1866	John Curtis.
Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (*Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.*)	1282	5th May 1866	George Davies.
Improvements in rails for railways and in the mode of and apparatus for producing the same.	1287	5th May 1866	Jonathan Law Booth.
An improved method of securing or holding flat bottomed or bridge rails.	1421	19th May 1866	George Jackson Vincent.
Improvements in the rails or permanent way of railways, and in the means of guiding and retaining locomotives and carriages thereon, for obtaining additional safety in travelling.	1458	25th May 1866	John Cooke.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Supporting the rails of railways	1481	28th May 1866	George Spencer.
Improvements in railways, and in propelling carriages and vessels by means of ropes or chains. (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Construction of parts of railways (*sleepers.*)	1567	6th June 1866	Hugh Greaves.
Improvements in overhead railways, and in machinery for moving, turning and weighing goods, wagons, carriages and engines for railway and other purposes.	1676	23rd June 1866	Thomas Deakin.
Machinery for turning, shaping and cutting metal (*rails.*)	1677	23rd June 1866	Thomas Dunn.
Improved modes of applying packing of elastic or flexible materials to axle trees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.	1699	26th June 1866	Charles Peachey Holliss.
Improvements in the construction of railway rolling stock and in the permanent way applicable thereto.	1745	30th June 1866	Telford Macneill.
Improvements in pneumatic railways and in carriages used therein.	1844	13th July 1866	Thomas Webster Rammell.
Mile posts and other indicators or signs used on railways and other places	1877	18th July 1866	John Goad. Edmond Goad.
Permanent way of railways	1951	27th July 1866	William Seaton.
Mode of and apparatus for increasing the adhesion of locomotive engine wheels to their rails. (*see* "WHEELS FOR CARRIAGES.")	2015	4th Aug. 1866	Angelo Vescovali.
Improvements in the permanent way of railways and in screw bolts for the same, which latter are also applicable to other purposes.	2019	6th Aug. 1866	Perceval Moses Parsons.
Rails for railways	2116	17th Aug. 1866	James Clark.
Permanent way of railways	2120	17th Aug. 1866	Alexander Berhard.
Permanent way of railways and signals for working the same	2160	23rd Aug. 1866	James Livesey. John Edwards.
Improvements in railways and in engines for use thereon.	2189	25th Aug. 1866	William Dunn Gainsford.
Manufacture of rails for railways	2214	28th Aug. 1866	George Hinton Bovill.
Permanent way of railways	2286	6th Sept. 1866	John Edwards.
Improvements in connecting parts of machinery and structures liable to impulsive forces. (*bolts for fish joints.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
An improved construction of railway (*Communicated by François Guillet.*)	2384	17th Sept. 1866	William Edward Gedge.
Constructing the permanent ways of railways	2432	21st Sept. 1866	Theodore Anthony Rochussen.
Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (*Communicated by Alfred Ely Beach.*)	2491	26th Sept. 1866	William Clark.
An improved manufacture of trenail	2651	13th Oct. 1866	Thomas Greenwood.
Manufacture of rails for railways (*Communicated by Samuel L. Potter.*)	2735	23rd Oct. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
An improved method of capping old and new rails used on railways and other ways.	2767	26th Oct. 1866	George Frederick Lee Meakin.
Securing or fastening screw bolts and nuts when tightened up. (*in rail joints.*)	2826	31st Oct. 1866	John Patterson.
Improvements in locomotive engines and their permanent ways, applicable for steep gradients and Alpine locomotion.	2986	14th Nov. 1866	Thomas Page.
Improved machinery for manufacturing spikes and rivets. (*for railways.*) (*Communicated by John Oliver Reilly and Alexander Wiley.*)	3058	21st Nov. 1866	Alfred Vincent Newton.
Means and apparatus employed for conveying telegraphic dispatches, letters and other light articles through tubes. (*Partly communicated by Dr Werner Siemens.*)	3090	24th Nov. 1866	Charles William Siemens.
Chair supports for the rails of railways - -	3153	30th Nov. 1866	Alfred Davy.
An improved method of securing the nuts of bolts - (*used in jointing rails.*)	3334	19th Dec. 1866	Rudolph Bodmer.
Fixing rails to the sleepers or permanent way of railways. (*Communicated by Jules Vautherin.*)	3434	29th Dec. 1866	William Clark.
Improvements in rails and in part of the permanent way of railways. (*Communicated by Gabriel Dümler.*)	3439	31st Dec. 1866	William Loeder.
XI.—Railway Switches, Points, Crossings and Turntables.			
An improved turntable and weighing machine combined - - - - - -	78	10th Jan. 1866	Jonathan Ireland. Samuel Davies.
Manufacture of railway crossings - -	698	7th March 1866	William Thomson.
Working the switches or points upon railways - (*Communicated by Auguste Louis Risbourg.*)	1119	20th April 1866	William Edward Newton.
Improvements in railway rolling stock, with the object of ensuring the safety of travellers. (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Machinery or apparatus for actuating railway signals and points.	1303	7th May 1866	James Brown.
Manufacture of crossings for the permanent way of railways.	1577	8th June 1866	Joseph Armstrong.
Improvements in overhead railways, and in machinery for moving, turning and weighing goods, wagons, carriages and engines for railway and other purposes. (*turntables.*)	1676	23rd June 1866	Thomas Deakin.
Working, governing or locking of railway signals and switches.	1681	23rd June 1866	Henry Hill.
Apparatus for actuating the points or switches of railways.	1732	29th June 1866	William Thomson.
A new or improved mode of actuating or working the points or crossings of railways so as to dispense with pointsmen - - -	1875	18th July 1866	Jean Joseph Louis Marie Lagarrigue. Pierre Aristide Castera.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Means of and apparatus for locking facing points or switches of railways.	1952	27th July 1866	William Stroudley.
Machinery or apparatus for actuating and regulating railway points and signals - -	1963	30th July 1866	John M'Kenzie. Thomas Clunes. Walter Holland.
Apparatus for working switches and signals of railways.	2185	25th Aug. 1866	William Lancaster Owen.
Railway switches - - - - - - (*Communicated by Benjamin Shiverick and Thomas Luther Calkins.*)	2509	28th Sept. 1866	John Henry Johnson.
An improved method of capping old and new rails used on railways and other ways. (*switches, crossings. &c.*)	2767	26th Oct. 1866	George Frederick Lee Meakin.
Apparatus relating to railway switches, signals and stop blocks.	2838	1st Nov. 1866	James Deas. Richard Christopher Rapier.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness. (*switches, guard rails, crossing pieces.*)	3024	17th Nov. 1866	Jaques Hermann Auguste Gruson.
Railway crossings - - - - -	3202	5th Dec. 1866	James Firth. Edward Firth.
Apparatus for actuating the points or switches of railways.	3413	28th Dec. 1866	William Thomson.
XII.—Railway Carriages; Coupling, Uncoupling and Altering Position of Carriages and Engines.			
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*linings for railway cars.*) (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles.	229	24th Jan. 1866	James William Evans.
Buffers, draw springs and bearing springs - (*for railway carriages.*) (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Improved apparatus or means for securing the safety of persons travelling by railway trains.	304	31st Jan. 1866	Coleman Defries.
Construction and lighting of railway carriages -	364	6th Feb. 1866	Richard Clark.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes.	369	7th Feb. 1866	Uriah Scott.
Improvements in the construction of railway wheels and in attaching them to their axles, part of which improvements are applicable to other wheels - - - - - -	526	20th Feb. 1866	Clifford Etches Winby. Frederick Charles Winby.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Construction and arrangement of springs (*for rolling stock.*)	763	14th March 1866	Julien François Belleville.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting carriages.*)	922	31st March 1866	James Davis.
Couplings of railway carriages, trucks or vans	971	5th April 1866	Richard Douglass Morgan.
Certain new and useful improvements in springs which are particularly adapted to use as railroad car springs, but may be applied to other purposes. (*Communicated by Alexander Watson.*)	1039	12th April 1866	Alexander Horace Brandon.
Improvements in railway rolling stock with the object of ensuring the safety of travellers. (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Compressing cotton or other light materials upon trucks or waggons, for transit upon railways or other roads	1273	4th May 1866	John Walker. Arthur Warner.
Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (*coupling clutch.*) (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Springs for railway and other carriages	1670	22nd June 1866	Timothy Whitby.
A new or improved coupling for railway carriages, trucks and waggons. (*Communicated by Alexander Robert Terry.*)	1686	25th June 1866	Edward Griffith Brewer.
Improved modes of applying packing of elastic or flexible materials to axle trees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.	1699	26th June 1866	Charles Peachey Holliss.
Improvements in the construction of railway rolling stock, and in the permanent way applicable thereto.	1745	30th June 1866	Telford Macneill.
An improved method of and apparatus for facilitating the passage of a guard or other person along the outside of a railway passenger train in motion.	1748	2nd July 1866	William James Baker.
Improvements in pneumatic railways and in carriages used therein.	1844	13th July 1866	Thomas Webster Rammell.
Construction of railway carriages	1923	24th July 1866	William Edward Kochs.
Construction of springs suitable for railway carriages and for various other uses.	2140	21st Aug. 1866	John Murphy.
An improved carriage for railways and overhead railways, by the use of which turntables are dispensed with.	2150	22nd Aug. 1866	Rudolph Wappenstein.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Means and apparatus for facilitating and perfecting the unloading of coals and other goods from railway waggons.	2193	25th Aug. 1866	Samuel Plimsoll.
The elastic tubular india-rubber air chambered pannels. (*for railway carriage seats.*)	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (*Communicated by Alfred Ely Beach.*)	2491	26th Sept. 1866	William Clark.
Apparatus for lifting or assisting to lift and for securing window sashes, shutters and other like frames and weights. (*railway carriage windows.*)	2511	28th Sept. 1866	Strother Price.
Improvements in the construction and mode of propulsion of locomotive carriages, and in apparatus to be used in connection therewith.	2551	4th Oct. 1866	John William Daniell.
Fastenings or couplings - - - - (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Connections between railway engines and carriages	3164	1st Dec. 1866	Walter Butler. Alexander Dalgety.
Means of communication between stations and railway trains in motion, and between passengers, guards and engine driver. (*construction of carriage seats.*)	3201	5th Dec. 1866	Henry Finch Swears.
Railway carriages and waggons - - - (*Communicated by Samuel Maynard.*)	3256	11th Dec. 1866	Clinton Edgcumbe Brooman.
Construction of vehicles to be used on railways -	3271	13th Dec. 1866	James Murphy.
An improved coupling for railway carriages - (*Communicated by George Dennis Spooner, John Frederic Fish Hale and Anrel Clement Stiles.*)	3360	20th Dec. 1866	William Robert Lake.
See also "WHEELS FOR CARRIAGES." *See also* "AXLES." For ventilating railway carriages, *see* "CARRIAGES." For lighting railway carriages, *see* "LAMPS."			
IV.—Railway Buffers and Breaks; Retarding and Stopping Trains; Preventing Collisions, &c.			
Breaks for railway and tramway carriages - - (*Communicated by John Davis.*)	67	9th Jan. 1866	James Marius Macrum.
Stopping and preventing slip from wet rails of locomotives and railway trains, and stopping carriages generally, and equalising force without fly wheels.	127	15th Jan. 1866	Thomas Comfield, the younger.
Certain improvements in railway breaks - -	156	17th Jan. 1866	Joseph Kennedy. Richard Stanley.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes. (*buffer and draw springs.*)	168	18th Jan. 1866	George Spencer.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles. (*buffer springs.*)	229	24th Jan. 1866	James William Evans.
Differential screw apparatus - - - (*applicable to breaks.*) (*Communicated by François Durand and Paul Baudet.*)	273	27th Jan. 1866	Richard Archibald Brooman.
Means and apparatus of communicating motion or power from the engine of a train to any part of the train. (*working breaks.*)	289	30th Jan. 1866	Henry Shaw.
Buffers, draw springs and bearing springs - - (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*buffers.*)	369	7th Feb. 1866	Uriah Scott.
Railway brakes - - - - -	564	23rd Feb. 1866	John Holly.
Railway brakes - - - - -	645	3rd March 1866	John Clark.
Operating railway carriage brakes - - - (*Communicated by Samuel M'Cambridge.*)	651	3rd March 1866	William Edward Newton.
Construction and arrangement of springs - - (*for buffer springs.*)	763	14th March 1866	Julien François Belleville.
Improvements in the manufacture of railway wheels and in apparatus for the same, which apparatus is also applicable for the manufacture of railway buffers.	803	17th March 1866	Pierre Michaud.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.
Breaks or mechanism for retarding and stopping railway and other carriages - - -	886	26th March 1866	James Richardson. John Tait.
Atmospheric railway breaks and communications -	996	7th April 1866	Charles Kendall.
Improvements in railway rolling stock, with the object of ensuring the safety of travellers. (*breaks.*) (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Improvements in or applicable to carriage, buffer, draw and other springs - - - -	1289	5th May 1866	Harry Statham. Benoni Collins.
Improvements in railways and in propelling carriages and vessels by means of ropes or chains. (*pendulous buffers.*) (*Communicated by Charles Thompson Harvey.*)	1526	31st May 1866	William Edward Newton.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages. (*stopping the engine.*)	1957	28th July 1866	John Phillips-Smith.
Railway brakes - - - - -	2111	16th Aug. 1866	John Holly.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RAILWAYS, &c.—*continued.*			
Improvements in railway breaks, parts of which improvements are applicable as shaft couplings. (*Communicated by Victor Amédée Gellée.*)	2219	28th Aug. 1866	John Henry Johnson.
An improved railway break - - -	2302	7th Sept. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Machinery for stopping or retarding railway trains and preventing accidents on railways.	2423	21st Sept. 1866	Gilbert Amable Laurent.
Breaks for retarding machinery and vehicles used on rail or common roads - - - -	2435	22nd Sept. 1866	Samuel Richards Freeman. Abraham Grundy.
Apparatus for preventing injury to persons in railway trains. (*Communicated by the Baron Von Roesgen Von Floss.*)	2621	10th Oct. 1866	William Manby.
Apparatus relating to railway switches, signals and stop blocks . - - - - - -	2838	1st Nov. 1866	James Deas. Richard Christopher Rapier.
Friction breaks and apparatus for giving motion to machinery.	2881	6th Nov. 1866	Robert David Napier.
An improved brake for railway carriages - - (*Communicated by Aaron Higley, Joseph Benjamin Birdsell and Varium Ogilva Birdsell.*)	2898	7th Nov. 1866	George Haseltine.
Railway breaks - - - - - -	2984	14th Nov. 1866	John Clark.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - - -	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Improvements in machinery or apparatus for the prevention of collisions and other accidents on railways, and for generally promoting increased safety in railway travelling.	3191	4th Dec. 1866	William Edwin Hickling.
Railway carriages and waggons - - - (*applying breaks.*) (*Communicated by Samuel Maynard.*)	3256	11th Dec. 1866	Clinton Edgcumbe Brooman.
Railway buffers - - - - - -	3261	11th Dec. 1866	Thomas Henry Cooper.
See also "SIGNALS."			
REAPING, MOWING, MAKING HAY.			
Harvesting machines, known as reaping-machines, mowing-machines, and combined reaping and mowing machines. (*Communicated by Sewell Gillam.*)	117	13th Jan. 1866	Charles Stuart Baker.
Improvements in reaping-machines, parts of which improvements are also applicable to mowing-machines. (*Communicated by Edouard François Fossey.*)	204	22nd Jan. 1866	John Henry Johnson.
Certain improvements in reaping and mowing machines - - - - - -	368	7th Feb. 1866	Reuben Sims. John Beard. Robert Burns.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
REAPING, &c.—*continued.*			
A double action harvesting and mowing machine -	528	20th Feb. 1866	William Mirabeau Wells.
Manufacture of reaping hooks and sickles -	755	13th March 1866	George Booth.
Improvements in reaping-machines, which improvements are also applicable to other agricultural implements in which chains are used for communicating motion - - - -	1096	19th April 1866	Edward Lord. Richard Norfolk.
Machines for cutting and harvesting grain and grass crops. (*Communicated by Moritz Poll and William Angele.*)	1414	18th May 1866	William Bünger.
Mowing machines - - - - -	1424	19th May 1866	James Bryce Brown.
Horse rakes - - - - - - - (*Communicated by Alzirus Brown.*)	1474	26th May 1866	John Gustavus Rollins.
Horse rakes - - - - - -	1490	29th May 1866	Robert Maynard. Robert Maynard the younger.
Reaping and mowing machines - - -	1621	14th June 1866	John Whitaker.
Reaping-machines - - - - -	1665	22nd June 1866	John Girvan.
Mowing and reaping machines - - -	1738	29th June 1866	Richard Hornsby.
Reaping and mowing machines - - -	1764	3rd July 1866	Henry Tyerman.
Reaping-machines - - - - -	1920	24th July 1866	Thomas Corbett.
An improvement applicable to reaping-machines -	2108	16th Aug. 1866	William Smith.
An improved construction of self raking reaper - (*Communicated by John Shorkley Marsh.*)	2154	22nd Aug. 1866	Frederick Howard.
An improved reaping machine - - -	2165	23rd Aug. 1866	Pierre Victor Bailleul.
Reaping-machines - - - - -	2254	1st Sept. 1866	John Baker.
Mowing-machines - - - - -	2274	4th Sept. 1866	James Bryce Brown.
Reaping-machines - - - - -	2314	8th Sept. 1866	Charles Thomas Burgess.
Horse hay rakes - - - - - (*Partly communicated by Daniel G. Adelsberger.*)	2358	14th Sept. 1866	Richard Robert Richm. Charles James Watts.
Construction of scythes - - - -	2439	22nd Sept. 1866	James George Curry Fussell. William Wise the younger
Reaping and mowing machines - - -	2523	29th Sept. 1866	Richard Hornsby, James Edwin Phillips.
Reaping-machines - - - -	2543	3rd Oct. 1866	Edward Pyne Lane.
Reaping and mowing machines - - -	2689	18th Oct. 1866	William Manwaring.
Machinery for lifting or pitching cut crops -	2727	22nd Oct. 1866	Spencer Peddar.
Apparatus or machinery for bending chain links - (*for rake teeth.*)	2834	1st Nov. 1866	Henry Richard John Denton.
Reaping-machines - - - - - (*Communicated by Jacob William Schuckers.*)	2903	7th Nov. 1866	Alfred Vincent Newton.
Reaping-machines - - - - -	3031	19th Nov. 1866	Thomas Wardlaw.
Improvements in apparatus for drying hay and other cut crops, also in apparatus for raising or elevating the same.	3036	19th Nov. 1866	William Alfred Gibbs.
Construction of hay, manure and other forks - (*Communicated by John Alexander Montgomery.*)	3043	20th Nov. 1866	George Haseltine.
Construction of reaping and mowing machines -	3050	20th Nov. 1866	James Howard. Edward Tenney Bousfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
REAPING, &c.—*continued.*			
Grass or lawn mowing-machines	3107	26th Nov. 1866	James Edward Boyd.
Improvements in reaping-machines and other agricultural implements in which endless delivering chains are or may be employed, and in machinery for making such chains.	3128	28th Nov. 1866	Richard Norfolk.
Construction of reaping and mowing machines	3182	24th Aug. 1866	Edward Tenney Bousfield.
Improvements in mowing and reaping machines, partly applicable to carriages and other wheeled vehicles. (*Communicated by John Gould Perry.*)	3186	4th Dec. 1866	George Haseltine.
Reaping and mowing machines	3220	6th Dec. 1866	Frederick William Turner.
Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
Construction of horse rakes	3313	17th Dec. 1866	Edward Howell. Thomas Hardy.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
Construction of mowing and reaping machines (*Communicated by James Shorkley Marsh.*)	3368	21st Dec. 1866	James Howard.
Machinery for cutting grass, corn and similar agricultural produce, and for gathering and binding the same into sheaves.	3436	31st Dec. 1866	William Exall.
REFLECTORS FOR LAMPS; REFLECTION OF LIGHT.			
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*reflectors.*)	369	7th Feb. 1866	Uriah Scott.
Reflecting optical instruments	723	9th March 1866	Henry Temple Humphreys.
Construction of reflectors (*Communicated by William Marot Marshall.*)	1541	2nd June 1866	Edward Primerose Howard Vaughan.
A new or improved mode of reflecting various coloured lights and shades upon stereoscopic and other objects, for producing different effects thereon.	2210	28th Aug. 1866	William Gould.
Manufacture of reflectors (*Communicated by William Henry Winder.*)	2674	16th Oct. 1866	Alfred Vincent Newton.
Apparatus for lighting and heating (*and reflecting light.*) (*Communicated by Jean Baptiste Marie Amédée Bourreiff.*)	2755	25th Oct. 1866	Clinton Edgcumbe Brooman.
Reflectors and ventilators in connection with gas and other lights.	2841	2nd Nov. 1866	George Watson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
RETORTS AND CRUCIBLES.			
Construction, arrangement and application of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases - - - - -	91	11th Jan. 1866	Percival Ashton Batchelor. Frederick Reddall.
Improvements in distilling coal shales and other substances - - - - -	478	15th Feb. 1866	James Young.
Improvements in the manufacture of articles of earthenware and in machinery or apparatus connected therewith. (*crucibles and melting pots.*)	576	24th Feb. 1866	Thomas Spencer.
Improvements in the manufacture of zinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes.	671	5th March 1866	Charles William Siemens.
Machinery or apparatus for distilling bituminous shale and other bituminous substances of a like nature.	756	13th March 1866	John Frederick Brinjes.
Furnaces, retorts and apparatus for smelting or treating zinc and other ores.	1167	25th April 1866	Alfred Borgnet.
Improvements in retorts and in the mode of working the same to obtain crude paraffin and other oils from cannel, coal, bituminous matter, wood, peat, bones or other material.	1600	12th June 1866	James Nicholas.
Means of fixing the covers of gas retorts - -	1854	16th July 1866	Alexander Roger Stark. James Woodman.
Improvements in the utilization of chloride of manganese (residue of the manufacture of chlorine) in the manufacture of peroxide of manganese, chlorine and hydrochloric acid, and in apparatus for the same. (*Communicated by Eugène Alphonse Cotelle.*)	2066	11th Aug. 1866	William Clark.
Construction and arrangements of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases.	2528	1st Oct. 1866	Percival Ashton Batchelor.
Improvements in the treatment or distillation of shale, coal and other bituminous substances, and in the means or apparatus employed therefor.	2788	29th Oct. 1866	Charles M'Beath.
Doors or closures of gas retorts - - -	2827	31st Oct. 1866	James John Holden. Sealy James Best.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*retorts for producing acid vapours.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Apparatus used in the manufacture of gas - -	3226	7th Dec. 1866	Alexander Colvin Fraser.
Apparatus for the manufacture of crucibles and other hollow articles from plastic materials -	3292	15th Dec. 1866	Thomas Vaughan Morgan. Edwin Hyles.
Improvements in the manufacture of hydrogen gas and in apparatus for the same, also in the application of the said gas for lighting, heating and as a motive-power. (*Communicated by Alexander Paul Victor Heurtebise.*)	3448	31st Dec. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ROPES, CORDAGE, TWINE, OAKUM, WIRE ROPES.			
Treatment and application of vegetable fibres (*suitable for rope yarn.*)	14	2nd Jan. 1866	Werner Staufen.
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials. (*for oakum or tow.*)	39	5th Jan. 1866	James Ronald.
An improvement in the manufacture of ropes	854	22nd March 1866	Robert Petty.
Machinery for dressing and polishing yarn, thread, twine, cords or ropes	936	2nd April 1866	William Hill. Thomas Whitehead.
Improvements in apparatus for winding in telegraphic cables, applicable also when winding in other ropes or chains.	1218	30th April 1866	Fleeming Jenken.
Improvements in cordage, webbing and similar articles, and in machinery for manufacturing the same. (*Communicated by James Amiraux Bazin.*)	1318	8th May 1866	George Tomlinson Bousfield.
Treatment and application of vegetable fibres (*for rope yarn.*)	1761	2nd July 1866	Werner Staufen.
Improvements in and apparatus for dressing or preparing for spinning hemp, flax, jute, manilla-hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics, into oakum, tow and paper stuff, dressing and cleaning "waste" tow, wool, hair and other like "waste" fibres.	1814	11th July 1866	William Walker.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
Machinery for making covered twist and cord (*Communicated by John Turner and Isaac Emerson Palmer.*)	1835	12th July 1866	William Edward Newton.
Apparatus for holding and releasing cords, chains, ropes and bands	1979	1st Aug. 1866	Walter Beaumont. William M'Master.
Improved machinery to be employed in the manufacture of banding or twine from cotton, worsted, linen or silk "cop bottoms," which machinery is also applicable to the manufacture of banding or twine from threads prepared for that purpose.	2074	13th Aug. 1866	Edward Whalley.
Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.	2269	4th Sept. 1866	Edward Nelson.
Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp or wire	2324	10th Sept. 1866	Peter John Railton. David Walton.
Machinery for cutting rags, ropes and other articles for paper-making and other purposes	2347	12th Sept. 1866	Enoch Harrison Aydon. Ebenezer Pocock.
Machinery for untwisting, separating and combing tarred ropes, for oakum, and for dressing hemp, flax, manilla, jute or other like material.	2459	25th Sept. 1866	William Hunter.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
ROPES, &c.—*continued.*			
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing, and placing, connecting and fastening together textile and other fabrics or materials, so as to be sewn or stitched or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Improved machinery for untwisting, opening and carding all kinds of rope and cordage. (*Communicated by William Wilson Davenport.*)	3159	1st Dec. 1866	William Edward Newton.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture.	3225	7th Dec. 1866	William Guest.
Cable stoppers - - - - - -	3319	17th Dec. 1866	Lieut.-Colonel James Baker. John Imray.
A new or improved process for the manufacture of oakum.	3435	29th Dec. 1866	Charles Sheridan.
For telegraphic cables, *see* "TELEGRAPHS."			
SALT AND SALTPETRE.			
Manufacture of salt - - - - -	290	30th Jan. 1866	William Lycett.
Manufacture of salt-petre and white-lead - -	301	31st Jan. 1866	Clarence Delafield.
An improved method of decomposing chloride of sodium and other compounds, by means of steam.	2768	26th Oct. 1866	Walter Weldon.
SEWING AND EMBROIDERING.			
Sewing-machines - - - - - -	61	9th Jan. 1866	William Stuart Guinness.
Machinery for sewing - - - - -	132	15th Jan. 1866	Albert Francis Johnson.
Construction of sewing-machines - - -	209	22nd Jan. 1866	George Baldwin Woodruff.
Mode of producing mechanical motion - - (*for sewing-machines.*) (*Communicated by Henry Smith.*)	220	23rd Jan. 1866	William Brookes.
An improved feed motion for sewing-machines -	247	25th Jan. 1866	William Winter.
Sewing-machines - - - - -	295	30th Jan. 1866	Alfred Smith.
Sewing-machines - - - - -	331	2nd Feb. 1866	George Barker. Charles Davis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SEWING, &c.—*continued.*			
Improvements in the construction, adaptation and application of machinery and apparatus for the manufacture of mats and envelopes of fibrous material, to cover and protect bottles and other fragile articles, and in the manufacture of such mats and envelopes.	373	7th Feb. 1866	George Clark.
Carriages and castors for sewing-machines (*Communicated by Nesbitt De Laney Stoops.*)	421	10th Feb. 1866	William Robert Lake.
Sewing-machines	475	14th Feb. 1866	William Newton Wilson.
Improvements in or additions to sewing-machines	495	16th Feb. 1866	John Paterson.
Mechanism for converting rotary motion into reciprocating motion (*for sewing-machines.*)	508	17th Feb. 1866	Henry Willis. George Rice.
Applying motive-power to sewing-machines for the purpose of rendering them self-acting.	600	27th Feb. 1866	Geminiano Zanni.
Certain improvements in sewing-machines	768	14th March 1866	Richard Gutteridge.
Sewing-machines	788	16th March 1866	Altham Pilling.
Sewing-machines	1201	28th April 1866	Joseph Buchanan Robertson.
Certain improvements in sewing-machines	1270	4th May 1866	Walker Bates Bartram.
Sewing-machines (*Communicated by Joseph Reimann.*)	1323	8th May 1866	Michael Henry.
Sewing-machines	1391	16th May 1866	Joseph Weatherby Bartlett.
Sewing-machines	1653	20th June 1866	Abraham Bowen.
Improved modes of applying packing of elastic or flexible materials to axle trees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise. (*packing sewing-machines.*)	1699	26th June 1866	Charles Peachey Hollis.
Embroidering machinery (*Communicated by Ernest Auguste Bourry.*)	1736	29th June 1866	William Clark.
Sewing-machinery (*to work button holes.*) (*Communicated by James Alford House and Henry Alonzo House.*)	1779	4th July 1866	Alfred Vincent Newton.
Sewing-machines (*Communicated by Elias Howe, junior.*)	1798	7th July 1866	William Clark.
An improvement in sewing-machinery (*Communicated by Amasa Bemis Howe.*)	1874	18th July 1866	Nahum Salamon.
Sewing and button hole machines (*Communicated by Emil Cajar and Charles Sichel.*)	1876	18th July 1866	Frederick Tolhausen.
Improvements in sewing-machines and in the devices used to impart motion to the same or to other machines. (*Communicated by Albin Warth and Eberhard Faber.*)	1880	19th July 1866	William Clark.
Sewing-machines (*Communicated by Charles Crosby and John Schenck.*)	1884	19th July 1866	Frederick Neidlinger.
Sewing-machines	1908	23rd July 1866	Alonzo Kimball.
Construction of sewing-machines	1936	25th July 1866	George Baldwin Woodruff.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SEWING, &c.—*continued.*			
Sewing-machines	1947	26th July 1866	John Page Hubbard. Charles Adams.
Improvements in ornamental weaving and in apparatus employed therein. (*embroidered fabrics.*)	1953	27th July 1866	John Orr.
Machinery and apparatus for the manufacture of boots and shoes, and other coverings for the feet	1964	30th July 1866	Thomas Greenwood. William Keats.
Sewing-machines (*Communicated by George Lynden Jencks.*)	2017	4th Aug. 1866	Ira Dimock.
Sewing-machines	2053	9th Aug. 1866	Charles Tiot Judkins.
Machinery for sewing	2069	13th Aug. 1866	Edward Alfred Cowper.
Certain new and useful improvements in sewing-machines. (*Communicated by William Chicken.*)	2112	17th Aug. 1866	Amos Lawrence Wood.
Sewing-machines	2136	20th Aug. 1866	William Taylor.
Apparatus to be used in the fringing and trimming of shawls, mantles and other fabrics requiring fringes or trimmings.	2202	27th Aug. 1866	Jonathan Northrop.
Improvements in the manufacture of thatch and in machines or machinery for producing the same, which machines are also applicable for binding, sewing and stitching purposes generally.	2419	21st Sept. 1866	George Onley Gooday.
Sewing-machines (*Communicated by Thomas Antoney Macaulay.*)	2610	9th Oct. 1866	George Francis Bradbury.
Sewing-machines	2611	9th Oct. 1866	Claverhouse Alfred M'Curd.
Sewing-machines	2617	10th Oct. 1866	James Warwick.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing, and placing, connecting and fastening together textile and other fabrics or materials, so as to be sewn or stitched or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Sewing-machines (*Communicated by Elias Howe, jun'.*)	2630	11th Oct. 1866	Alfred Vincent Newton.
Sewing-machinery (*Communicated by Lewis Budd Bruen.*)	2718	20th Oct. 1866	George Haseltine.
Sewing-machinery (*Communicated by Henry William Fuller.*)	2740	23rd Oct. 1866	George Haseltine.
Construction of sewing-machines	2785	27th Oct. 1866	Meshach Hopkins. Abednego David Hopkins.
Sewing-machines	2829	1st Nov. 1866	Thomas Henderson.
An improved mode of and means for attaching casters to the stands of sewing-machines. (*Communicated by Myron Perry.*)	3059	21st Nov. 1866	George Haseltine.
Sewing-machines	3185	4th Dec. 1866	Edward Sang.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SEWING, &c.—*continued.*			
Sewing-machinery	3246	8th Dec. 1866	Frank Armstrong.
Sewing and embroidering machines	3284	14th Dec. 1866	Leonard Lindley. Frederick Taylor.
Improvements in machinery or apparatus for linking, joining, turning off and clearing looped or knitted fabrics, applicable also to stitching-machines.	3305	15th Dec. 1866	William Campion.
Manufacture of elastic gussets	3451	31st Dec. 1866	James Miller. James Miller Junr.
SHEARING SHEEP, CLIPPING HORSES.			
Shears or scissors (*sheep shears.*) (*Communicated by Richard March Hoe.*)	81	10th Jan. 1866	William Edward Newton.
Improvements in apparatus and in the application thereof for the shearing of sheep and other animals.	1645	19th June 1866	Arthur Dallison Renshaw.
Means and machinery for clipping horses and other animals.	2796	30th Oct. 1866	Patrick Adie.
An improvement in the manufacture of sheep shears.	3255	11th Dec. 1866	William Hopkinson.
SHIP AND BOAT BUILDING, SHEATHING, REPAIRING, WORKING, LOADING AND UNLOADING; MASTS, SPARS, &c.			
Improvements in the conveying of materials and in the apparatus employed therefor. (*barges; loading and unloading.*)	21	3rd Jan. 1866	William Simons.
Constructing ships and vessels	87	10th Jan. 1866	Christopher Oswald Papengouth.
Improvements in the construction of steam-boilers, which improvements are also applicable to the construction of other vessels of a like character (*hulls of iron ships.*)	148	16th Jan. 1866	Richard Cherry. Edwin Crossley. William Bower.
Closing the hatchways or deck openings of ships, and side ports or openings in the same.	219	23rd Jan. 1866	Charles Edward Healey Chadwyck Healey.
Construction of boats	232	24th Jan. 1866	William King Hall.
An improved composition for coating materials and structures. (*ships' bottoms.*)	235	24th Jan. 1866	John Milne Watt.
Machinery or apparatus for cleansing the bottoms of ships and other submerged structures.	252	25th Jan. 1866	Henry Gardner.
Construction of steam vessels (*Communicated by Henry Randall.*)	256	26th Jan. 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIP BUILDING, &c.—*continued.*			
Mode of and apparatus for applying copper sheathing to ships constructed of or plated with iron.	257	26th Jan. 1866	François Louis Roux.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*discharging ballast.*)	286	29th Jan. 1866	James Robertson.
Securing the hatchways, skylights and other openings of steam and other ships or vessels.	343	3rd Feb. 1866	Edward Montagu Leeds.
Certain improvements in preventing oxidation, as also the fouling of the lower parts of iron-built ships, which said improvements are also applicable for protecting the inside or hull portion of such kind of ships, as well as the internal iron parts used for lining or strengthening vessels principally constructed of wood.	352	5th Feb. 1866	John Russell.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
An improved construction of port stopper applicable to turret ships and land and floating batteries. (*Communicated by John Ericsson.*)	436	12th Feb. 1866	Alfred Vincent Newton.
Improvements in the construction of or arrangements for removing water from the interiors of sea-going and other vessels, and in closing or stopping leaks in such vessels.	439	12th Feb. 1866	Frederic Pelham Warren.
Apparatus for facilitating the working and discharge of ordnance below the water level.	441	12th Feb. 1866	James Atkinson Longridge.
Building ships of war - - - - -	472	14th Feb. 1866	Robert Napier.
Improvements in the construction of vessels of war, forts and batteries, and in mounting and working guns therein.	548	22nd Feb. 1866	John Walker.
Construction of ships with a view to the saving of life at sea. (*making poops, &c. removeable.*)	560	23rd Feb. 1866	Martin Samuelson.
Building ships of war - - - - -	569	23rd Feb. 1866	John Scott Russell.
Improvements in apparatus for cleaning the bottoms of iron, steel and other navigable vessels, when afloat and in motion, or lying in a stream.	574	24th Feb. 1866	Thomas Bulley.
Steam vessels - - - - - - (*Communicated by David Fernando Masnata.*)	638	2nd March 1866	William Clark.
An improved apparatus for cleaning ships' sides and bottoms - - - - - -	692	7th March 1866	William Machin. Samuel Machin.
Dredging and elevating machinery - - (*unloading barges.*)	704	8th March 1866	Sylvester Franklin Schoonmaker.
Improved arrangements for protecting hatchways in ships and vessels.	712	9th March 1866	William Fleming.
Bolts to be used in the building or construction of ships or vessels.	734	10th March 1866	William Simons.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee
SHIP BUILDING, &c.—*continued.*			
Improvements in impervious compounds applicable where india-rubber, gutta-percha or such like resins or gums are used. (*felt for sheathing ships.*)	748	12th March 1866	John Macintosh.
Improvements relating to the boilers and engines of steam ships.	759	14th March 1866	John Elder.
An improved submarine and torpedo boat - -	766	14th March 1866	Scovil Sturgis Merriam.
Protecting iron ships and other submerged structures from corrosion and fouling.	774	15th March 1866	Martyn John Roberts.
Construction of ships and other vessels - -	856	22th March 1866	Thomas Edward Symonds.
Manufacture of metal bolts and rods for ship building and other purposes.	879	24th March 1866	William Boggett.
Improvements in recovering sunken ships or vessels, and in the apparatus relating thereto. (*raft.*) (*Communicated by Ernest Bazin.*)	910	29th March 1866	Henri Adrien Bonneville.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting ships.*)	922	31st March 1866	James Davis.
Improvements in docks and apparatus connected therewith, parts of which are applicable to floating structures.	1008	9th April 1866	John Macintosh.
Improved adhesive compositions for attaching copper or other sheathing to iron, wood or other ships or vessels.	1044	13th April 1866	Henry Benson James.
The improvement of the means of and apparatus for laying submarine electrical telegraphic wires, lines, cables or other contrivances of a like sort. (*mooring the vessels.*)	1068	16th April 1866	Reinhold Edward Kaulbach.
An improved varnish for preserving wood, and for protecting iron ships and other metal work from oxydation and from fouling. (*Communicated by Adolphe Guibert.*)	1078	17th April 1866	Clinton Edgcumbe Brooman.
An improved composition for coating or covering ships' bottoms and other surfaces subjected to the action of sea water. (*Communicated by James Beeston and John Spence.*)	1102	19th April 1866	Robert Hamilton.
Manufacture of articles made of plates, sheets or bars of wrought iron or of steel. (*ships.*)	1106	19th April 1866	Daniel Evans.
Protecting iron ships from fouling and corrosion -	1195	27th April 1866	Jacob Baynes Thompson.
Preventing corrosion and fouling of iron ships -	1209	28th April 1866	William Peter Pigot.
An improved method of fixing rowlocks, crutches, and thowls, to all descriptions of boats and craft propelled by oars.	1262	4th May 1866	Frederick Furrell.
Attaching wooden planking to iron ships and other vessels.	1322	8th May 1866	Joseph Horatio Ritchie, Junior.
Fittings applicable to ships' decks to make tight joints around masts and other projections. (*Partly communicated by Andrew Gove.*)	1372	14th May 1866	William Gerard.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIP BUILDING, &c.—*continued.*			
Construction of vessels of war, forts and other defences.	1437	22nd May 1866	Cowper Phipps Coles.
Improvements in rudders and stern posts, and in connecting the same so as to allow of the ready shipping and unshipping of the rudder from the deck.	1498	29th May 1866	Francis Hewitt.
Improvements in the construction of parts of ships and other vessels, and in the mode or method of using or employing such parts as a means of saving life at sea and for other purposes - -	1514	31st May 1866	Henry William Hire. John White.
Improvements in the construction of life boats and in sails for the same, for the purpose of saving life at sea - - - - -	1659	21st June 1866	William Forgie. John Thornton.
Construction of rafts for saving life at sea and for other purposes.	1660	21st June 1866	Laurence Hart.
Ships or other navigable vessels to be employed in conveying liquid cargoes.	1705	26th June 1866	Charles Beeching.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses. (*for ship-building.*)	1803	9th July 1866	William Baines.
An improved compound for coating ships' bottoms and other surfaces. (*Communicated by Charles James Eames.*)	1805	9th July 1866	Alfred Vincent Newton.
Means of preserving timber from decay - - (*coating for ships' bottoms.*) (*Communicated by George Palmer Ball.*)	1846	13th July 1866	Alexander Prince.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith.
Improvements in ships or vessels of war, part of which improvements are applicable to other ships or vessels.	1925	24th July 1866	Fitzmaurice Palmer.
A new or improved process or method of treating armour plates to render them inoxidizable. (*Communicated by Mayeul Bernabé.*)	1934	25th July 1866	Clinton Edgcumbe Brooman.
Machinery for cutting dove-tail joints - - (*for ships' planking.*) (*Communicated by Frederick Woolcot Armstrong.*)	2001	2nd Aug. 1866	Samuel Thompson Armstrong.
Ships' furniture in which a steady platform is required. (*see* "FURNITURE.")	2009	3rd Aug. 1866	Charles Ritchie.
Improvements in the permanent way of railways and in screw bolts for the same, which latter are also applicable to other purposes. (*bolts for securing armour plates.*)	2019	6th Aug. 1866	Perceval Moses Parsons.
Processes of jointing and connecting together armour plates used for covering and defending ships, ships' turrets, or batteries on land, against the effect of shot.	2038	8th Aug. 1866	Sir John Benson *Knight.*
Double hydrostatic scales for determining the load of ships or boats. (*see* "WEIGHING.") (*Communicated by Wilhelm Oscor Reim.*)	2041	8th Aug. 1866	William Clark.
An improved method of or apparatus for manœuvring guns. (*working batteries.*)	2139	20th Aug. 1866	Robert Anthony Edwards Scott.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIP BUILDING, &c.—*continued.*			
A new or improved method of constructing armour plated ships and vessels.	2151	22nd Aug. 1866	John Moore Hyde.
Ships or vessels - - - - - -	2191	25th Aug. 1866	John Oliver York.
Constructing vessels of war and other structures required to be rendered shot proof.	2223	29th Aug. 1866	Timothy Whitby.
Sheathing iron ships and other floating bodies, and other iron structures subject to the action of sea and other waters.	2283	5th Sept. 1866	Henry Robins.
Construction of ships and other vessels - -	2294	6th Sept. 1866	Thomas Berney.
Improvements in the connecting parts of machinery and structures liable to impulsive forces. (*armour plated ships.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
Improved apparatus to facilitate the unloading and delivery of coal, stone and other articles from ships, barges and other vessels.	2339	2nd Nov. 1866	Hugh Greaves.
Sheathing of iron ships - - - - -	2495	27th Sept. 1866	John Clowes Bayley. Daniel Campbell.
Improved means or appliances for preventing ships or vessels from foundering, by imparting additional buoyancy thereto.	2498	27th Sept. 1866	Joseph Eugene Thibault.
Bolts and washers - - - - - (*for armour plates.*)	2524	1st Oct. 1866	James Chalmers.
An improved composition to be substituted for ordinary paints - - - - - (*for coating ships.*)	2540	3rd Oct. 1866	William Hope. Henry Browning.
Improvements in raising vessels and in the machinery or apparatus employed therefor.	2547	3rd Oct. 1866	William Dundas Scott.
Improvements in constructing ships or vessels propelled by twin propellers, and in steam-engines for giving motion to the same.	2608	9th Oct. 1866	William Dudgeon.
Construction of ships and vessels with a view to speed and buoyancy.	2657	13th Oct. 1866	William Long Wrey.
Building ships and vessels of war - -	2676	16th Oct. 1866	Robert Napier.
Improvements in the construction of ships for war purposes, applicable in part also to the construction of forts.	2692	18th Oct. 1866	Charles Chapman.
Improvements in the construction of ships' boats, which improvements are chiefly applicable to the construction of life boats.	2776	26th Oct. 1866	Tristram Shandy Simpson.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes. (*bars for ships' frames.*)	2792	29th Oct. 1866	Ralph Hart Tweddell.
Fastenings and backing for armour plates - - (*Communicated by John Gregory.*)	2821	31st Oct. 1866	Henry Headley Williams.
An 'auxiliary smith's' fire - - - (*for heating stern posts.*)	2843	2nd Nov. 1866	William Frost. John Henry Leather. James Nelson.
Sheathing vessels - - - - - -	2891	7th Nov. 1866	Thomas Dawson. John Paley.
Method of placing, stowing and employing life rafts on board ship.	3013	17th Nov. 1866	John Witherden Hurst.
Armour plating for vessels of war, floating or land batteries, and fortifications.	3033	19th Nov. 1866	Jaques Hermann Auguste Gruson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIP BUILDING, &c.—*continued.*			
An improved mode of ascertaining the true position of such vessels as have foundered at sea, and improvements in the apparatus or means connected therewith. (*see* "BUOYS.")	3044	20th Nov. 1866	Adam Hunter.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*armour plates.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Improved apparatus for discharging bilge water from vessels' holds - - - - -	3176	3rd Dec. 1866	August Hermann. Henry Brethauer.
A novel buoy or apparatus for storing valuable property on ship board and preserving the same in case of shipwreck.	3238	8th Dec. 1866	François César Buisson.
Construction of ships' capstans - - - -	3240	8th Dec. 1866	William Henry Biggleston.
Improvements in armour plating or protecting vessels of war, forts and other like structures, and in the manufacture of the plates and material employed therein.	3249	10th Dec. 1866	Walter Chidiock Nangle.
Improvements in the construction of steam ships, sailing ships, boats and other vessels for sea or inland navigation, the said improvements being for the purpose of facilitating the quick steering or manœuvring of such vessels.	3276	13th Dec. 1866	Johann Heinrich Grell.
Apparatus for bending bars and plates of metal - (*for ships.*)	3291	14th Dec. 1866	Thomas Berney.
Cable stoppers - - - - - - -	3319	17th Dec. 1866	Lieut^{t} Colonel James Baker. John Imray.
An improved composition for the coating of the bottoms of ships and other vessels.	3348	20th Dec. 1866	Samuel Parry.
Improved arrangements and apparatus for removing or transferring tar or similar materials from one place or receptacle to another. (*discharging from barges.*)	3349	20th Dec. 1866	Edward Dorsett.
Construction of vessels of war and other structures requiring to be rendered shot proof.	3352	20th Dec. 1866	Timothy Whitby.
An improved compound for coating ships' bottoms and other surfaces. (*Communicated by Charles James Eames.*)	3355	20th Dec. 1866	Alfred Vincent Newton.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.

For ships' logs and sounders, *see* "MEASURING PROGRESS."
For ships' pumps, *see* "PUMPS."
For graving docks, *see* "DOCKS."
For rudders, *see* "STEERING."
For anchoring ships, *see* "ANCHORS."
For ventilating ships, *see* "VENTILATION."
For lighting ships, *see* "LAMPS."
For ships' compasses, *see* "COMPASSES."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIPS' BOATS (*Lowering and Disengaging.*)			
Apparatus for lowering boats, part of which apparatus is applicable to other uses - -	259	26th Jan. 1866	Edward Ambrose. William Braddon.
An improved detachable or disengaging eye for launching boats from the sides of ships and for other purposes. (*Communicated by Samuel Brown and Leon Level.*)	285	29th Jan. 1866	William Clark.
Improved apparatus for lowering and disengaging ships' boats, part of which improvements is applicable to blocks employed for other purposes.	1081	17th April 1866	Edmund Reynolds May.
Apparatus used when lowering and releasing ships' boats.	1247	2nd May 1866	Carl Henrik Ramsten.
Improvements in raising and lowering ships' boats and other weights, and in the apparatus used therefor. (*Communicated by Digby Murray.*)	1347	10th May 1866	Thomas Thornton.
Apparatus for detaching ships' boats - -	2093	15th Aug. 1866	Henry Burt White.
A new and useful improvement for detaching boats from their davits. (*Communicated by Thomas Huntington.*)	2261	3rd Sept. 1866	Henri Adrien Bonneville.
Means for expediting the putting out of ships' boats.	2919	9th Nov. 1866	William Cassap.
Apparatus to be used for lowering boats - -	2952	12th Nov. 1866	Digby Murray.
An improved detaching hook - - - (*Communicated by Samuel Brown and Leon Level.*)	3228	7th Dec. 1866	William Clark.
SHIPS' RIGGING AND SAILS; REEFING AND FURLING SAILS; SHIPS' RIG.			
Improvements in the reefing of sails and in the machinery or apparatus connected therewith.	420	10th Feb. 1866	Jonathan Davidson.
Improvements applicable to square top-sails and top gallant sails.	494	16th Feb. 1866	William Davidson.
Apparatus for reefing and furling sails of ships and vessels.	876	24th March 1866	John Medhurst.
Improvements in reefing and furling sails, and in apparatus connected therewith.	970	5th April 1866	George Allix.
Improvements in the rig of ships, and the setting, reefing and taking-in of their sails from the deck.	1400	17th May 1866	Charles Chapman.
Improvements in apparatus for reefing and furling fore and aft sails, in fittings for the same, and improved fittings for the gaff.	1595	12th June 1866	George Allix.
Manufacture of blocks or pulleys by machinery - (*Communicated by Arsène Bonnardel.*)	1702	26th June 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHIRTS, COLLARS, WRISTBANDS, NECK-TIES, SCARFS, DRAWERS, HOSE.			
An improvement in collars for the neck - -	53	8th Jan. 1866	Timothy Joseph Clanchy.
Machinery or apparatus employed in the manufacture of looped or knitted fabrics - - (*shirts or hose.*)	111	13th Jan. 1866	William Comery. Henry Webster.
Circular frames for the manufacture of looped fabrics. (*making stockings.*) (*Communicated by Emile Lecœur.*)	134	15th Jan. 1866	Richard Archibald Brooman.
Cutting presses employed in the manufacture of boots, shoes, envelopes, paper collars and various other articles.	328	2nd Feb. 1866	James Charles Patrick.
Improved machinery for manufacturing paper collars, cuffs, wristbands and other articles of similar character. (*Communicated by Edwin Blood.*)	437	12th Feb. 1866	Alfred Vincent Newton.
Machinery for making collars, cuffs, wristbands and other similar articles of dress. (*Communicated by Henry Francis Knapp.*)	474	14th Feb. 1866	William Edward Newton.
An improvement in shirts - - -	929	31st March 1866	John Blair.
Certain improvements in wearing-apparel - (*shirts.*)	1650	20th June 1866	Edmond Pearson.
An improved neck-tie or scarf retainer - - (*Communicated by Jacob Albert Eshleman.*)	1807	10th July 1866	George Davies.
Improvements in collars for the neck and in wristbands.	1954	27th July 1866	George Speight.
Manufacture of ornaments for the wrist - -	2569	5th Oct. 1866	James Badcock.
Manufacture of certain articles of dress or wearing-apparel, such as coats, trousers, vests, jackets, mantles, cloaks, shirts, drawers and similar articles.	2577	6th Oct. 1866	Samuel Leather.
Certain improvements in wearing-apparel known as the shirt or shirt front and the trousers.	2751	24th Oct. 1866	William Calvert.
Finishing parts of woollen garments - - (*stockings and shirts.*)	2936	10th Nov. 1866	Frederick Bruce Donisthorpe.
An improvement in certain articles of wearing-apparel, commonly called shirt fronts or dickeys, and chemisette fronts.	3024	18th Dec. 1866	George Speight.
SHOT, SHELL, BULLETS AND OTHER PROJECTILES; TORPEDOES.			
Projectiles for breech-loading rifles - -	92	11th Jan. 1866	Theophilus Alexander Blakely. Josiah Vavasseur.
Torpedoes or submarine explosive instruments -	379	7th Feb. 1866	Charles Ambrose M'Evoy.
Construction of projectiles for ordnance and fire-arms.	636	2nd March 1866	George Palmer Evelyn.
Hollow projectiles - - - - - -	826	20th March 1866	Henry James Alderson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHOT, &c.—*continued.*			
Improvements in projectiles and in cartridges (*Communicated by John Webster Cochran.*)	834	21st March 1866	Clinton Edgcumbe Brooman.
Projectiles	1087	18th April 1866	Clemente de Caesaris.
Manufacture of hollow projectiles	1221	30th April 1866	William Deakin. John Bagnall Johnson.
Improvements in shells and in fuses used with shells.	1555	5th June 1866	Charles Ambrose McEvoy.
Construction of segment shells	1914	23rd July 1866	Andrew Noble.
Torpedoes or submarine explosive instruments	2035	7th Aug. 1866	Charles Ambrose McEvoy.
Explosive shells	2058	10th Aug. 1866	Lewis Edward Williams.
Manufacture of hollow projectiles	2124	18th Aug. 1866	Robert Anthony Edwards Scott.
An improved mode of preventing oxidation of lead balls in fixed ammunition. (*Communicated by Barton Howard Jenks.*)	2215	28th Aug. 1866	William Edward Newton.
Improvements in the lock and other parts of breech-loading fire-arms, and in cartridges and projectiles for the same.	2293	6th Sept. 1866	George Vincent Fosbery V.C.
Projectiles for fire-arms and ordnance (*Communicated by Samuel Hatt Haycock.*)	2393	18th Sept. 1866	William Robert Lake.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*hexagon shells.*)	2522	29th Sept. 1866	Joseph Whitworth.
Construction and use of projectiles and ordnance and other arms.	2530	2nd Oct. 1866	Thomas Berney.
Projectiles	3204	5th Dec. 1866	Fitzmaurice Palmer.
Certain improvements in breech-loading fire-arms, and in cartridges and bullets for the same. (*Communicated by Hiram Berdan.*)	3253	10th Dec. 1866	William Edward Newton.
Breech-loading guns and projectiles	3325	18th Dec. 1866	John Macintosh.
SHOW-CASES, EXHIBITING GOODS FOR SALE, SHOP SAFES, FRONTS AND COUNTERS; NAME PLATES, STREET NAME INDICATORS.			
An improved method of manufacturing name plates of metal, and in producing ornamental devices upon metal plates.	517	20th Feb. 1866	James Nall.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*escutcheons.*) (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SHOW-CASES, &c.—*continued.*			
Show cases	840	21st March 1866	Frederick Sage.
Brackets (*for shop windows.*)	1743	30th June 1866	Manuel Leopold Jonas Lavater.
Preparation and application of surfaces for disposing and picking up coin. (*shop counters.*)	1797	7th July 1866	John Murray.
Mile posts and other indicators or signs used on railways and other places	1877	18th July 1866	John Goad. Edmond Goad.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials. (*for show boards.*)	1898	21st July 1866	Edward Tomlinson.
Boxes or cases for packing and exhibiting goods or articles of various kinds.	2370	14th Sept. 1866	Richard Couchman.
Show cases or boxes	2401	18th Sept. 1866	Frederick Sage.
Manufacture of show cards, bills or tablets for advertising purposes.	2690	18th Oct. 1866	Benjamin George George.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes. (*for show-cards, &c.*)	2937	10th Nov. 1866	Gustave Josse.
Improvements in shop fittings, applicable also to book shelves and other articles of furniture	3074	22nd Nov. 1866	George Frederick Stidolph. John Stidolph. Joseph Roberts Morley.
Manufacture of lettered, numbered and figured tablets, door and name plates, labels and signs, show plates and other similar articles.	3160	1st Dec. 1866	George Mansell.
SIFTING, SORTING, SEPARATING.			
Improved machinery for assorting grain and seeds	55	8th Jan. 1866	James Kerridge. William Peverett.
Machinery or apparatus for the construction or making of moulds for casting in metals. (*sifting the sand.*)	56	8th Jan. 1866	Archibald Gibb.
Improvements in weighing-machines and in apparatus for reducing to weight, part of which improvements are applicable for feeding blanks to coining presses and to other machines. (*classifying according to weight.*)	108	12th Jan. 1866	James Murdoch Napier.
Improved arrangements of mechanism for washing and separating ores.	707	8th March 1866	John Hunt.
An improved apparatus for sifting sugar or flour or other meals, or separating the smaller from the grosser particles in sauces and condiments.	909	29th March 1866	Morris Myers.
Apparatus for decorticating rice and other grain (*Communicated by Edmond Théodore Ganneron.*)	917	29th March 1866	Henry Edward Newton.
Improvements in machinery or apparatus for shaking, riddling, raising and delivering straw, hay, corn and other like agricultural produce, and in the mode of driving or transmitting motion thereto, parts of which improvements are applicable to the driving or transmitting of motion to other machinery	1072	16th April 1866	James Hayes, the elder. Josiah Hayes. James Hayes, the younger.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIFTING, &c.—*continued.*			
Apparatus for sifting flour and other substances - (*Communicated by Joseph Wells.*)	1073	16th April 1866	John Henry Johnson.
Improvements in crushing, separating and washing ores and other substances, and in apparatus employed therein. (*Communicated by Louis Bataille.*)	1079	17th April 1866	Clinton Edgcumbe Brooman.
Machinery and processes for deodorizing and treating sewage and other refuse, and manufacturing therefrom manure and other substances for chemical and other uses. (*separating sand, grit, &c.*)	1163	25th April 1866	George Edward Noone.
Improvements in feeding apparatus applicable to mills and machines for grinding, kibbling or crushing grain and other substances - -	1213	30th April 1866	Richard Robert Riches. Charles James Watts.
Apparatus for screening coals and other materials -	1682	23rd June 1866	William Poupard.
Improved apparatus for treating corn and other materials. (*separating.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Screens for screening grain and other substances -	1719	27th June 1866	William Wyatt.
Apparatus applicable to sewers and drains, for separating the fluid and solid parts of sewage.	1820	11th July 1866	Charles Edward Austin.
Mills for grinding corn and other hard substances -	1841	13th July 1866	Walkden Thompson. Thomas Stather.
Machines for dressing or for removing dirt and foreign matters from currants and other fruit.	1856	16th July 1866	Richard Soans.
Machinery or apparatus for mixing and repacking tea, also applicable to the mixing of other granular substances.	1861	17th July 1866	William Thompson.
Machinery or apparatus employed in dressing, screening and separating grain, and for other similar purposes.	2177	24th Aug. 1866	Josiah Thomas Poyser.
Machinery for hulling and cleaning coffee and other berries or seeds. (*Communicated by William Van Vleek Lidgerwood.*)	2242	30th Aug. 1866	William Edward Newton.
Machinery or apparatus for separating grain from straw. (*Communicated by Pierre Ernest Antoine Revol.*)	2394	18th Sept. 1866	William Edward Gedge.
Processes and machinery for producing fibres suitable for being spun, from rags or remnants of woven or other textile fabrics made of silk, wool, cotton or other fibrous materials.	2497	27th Sept. 1866	Henry Ernest Gilles.
Improved apparatus for separating liquid from solid substances - - - - -	2696	18th Oct. 1866	Nathaniel Grew. George Henry Money.
A new and improved sorter and a drilling machine connected therewith. (*Communicated by Jacques Lhuillier.*)	2930	10th Nov. 1866	Henri Adrien Bonneville.
Means of and apparatus for separating substances of different specific gravities.	3205	5th Dec. 1866	Thomas Jonas Chubb.
Improved machinery for assorting silk and other fibres.	3260	11th Dec. 1866	James Varley.
An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.	3422	29th Dec. 1866	Joseph Slatter.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIGNALS, ALARMS, COMMUNICATING APPARATUS.			
Signalling apparatus for colliery and other purposes	22	3rd Jan. 1866	William Buckley.
Manufacture of telegraph standards, fencing posts and signal posts.	24	3rd Jan. 1866	George Sinclair Robertson.
Manufacture of telegraphic and signal pillars or posts.	89	10th Jan. 1866	William Baines.
Apparatus to be used for protecting property from fire and thieves.	96	11th Jan. 1866	William Atkins Rudling.
Railway signals - - - - - -	128	15th Jan. 1866	John Irwin.
Apparatus for preventing accidents on railways -	149	16th Jan. 1866	William Lyne.
Certain new or improved means whereby passengers may signal or communicate with guards and engine drivers of railway trains, and also with the occupants of the adjoining and other carriages forming railway trains.	255	25th Jan. 1866	Philip Edward Waddell.
New or improved means or apparatus for effecting communication between guards and passengers in railway carriages.	276	27th Jan. 1866	Horace Wilde.
Improved apparatus or means for securing the safety of persons travelling by railway trains.	304	31st Jan. 1866	Coleman Defries.
An improved composition for burning in lamps and otherwise, the residuum therefrom being applicable for use in fire-works and for other purposes. (*for signal lights.*)	309	31st Jan. 1866	Alexander Dembinsky.
Apparatus for communicating or signalling between passengers and guard and engine driver of railway trains.	327	2nd Feb. 1866	William John Blinkhorn.
Improvements in galvanic batteries for keeping up constant currents of electricity for railway train signals and electric telegraphic purposes -	338	3rd Feb. 1866	Albert Horwood. Charles Brumfit.
Electric intercommunication in railway trains -	347	5th Feb. 1866	Charles Vincent Walker.
Apparatus used for the protection of trains on railways by signalling.	512	17th Feb. 1866	Joseph Smith.
Certain improvements in the method of and means for communicating with and transmitting power from place to place.	521	20th Feb. 1866	Alfred Moore.
Railway signals - - - - - -	524	20th Feb. 1866	John Alfred Warwick.
An improved method of and apparatus for signalling and giving alarm on railways - -	587	26th Feb. 1866	Joseph Pickin. Richard Bailey.
Detonating and light signals for railways and other uses - - - - - -	595	27th Feb. 1866	William Peter Le'Keux. Frederick Augustus Wishart.
Improvements in signal, street and other lamps, and in gas-burners.	619	28th Feb. 1866	Richard Clark.
An improved fire alarm - - - - -	662	5th March 1866	John Crean. Charles Joseph Barr.
Means or apparatus for signalling on railway trains	679	6th March 1866	Robert Donaldson.
Improvements in apparatus for conveying tidings of the loss or distress of vessels at sea, also applicable for conveying lines on shore from stranded vessels.	693	7th March 1866	George Randle.
Certain improvements in safes or similar depositories.	717	9th March 1866	Thomas Bewster Moxon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIGNALS, &c.—*continued.*			
A new and improved method of indicating the shot mark on a target at ball practice.	790	17th March 1866	Edwin Robert Wethered.
An improved electrical indicator	883	24th March 1866	Walker Moseley.
Electric telegraphs (*for signalling.*)	932	31st March 1866	Samuel Manley Martin. Samuel Alfred Varley. Frederick Henry Varley.
A new kind of self-acting fire alarm to make known the existence of fire in warehouses, factories, dwelling houses and other premises.	935	5th April 1866	George Henry James Simmons.
Improvements in train inter-communication, parts of the invention being applicable to other purposes	988	5th April 1866	Samuel Manley Martin. Samuel Alfred Varley.
Atmospheric railway breaks and communications (*and alarm or signal.*)	998	7th April 1866	Charles Kendall.
Telegraphic signalling apparatus	1050	13th April 1866	Thomas Brittan.
Steam whistles	1077	16th April 1866	William Cuthbert.
Means or apparatus for signalling on and effecting communication between parts of railway trains.	1122	20th April 1866	Thomas Alderman.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Improvements in the mode of mounting targets for rifle ranges, and in the construction of markers' screens and signals designed for use with the same.	1187	27th April 1866	William Soper.
Improvements in railway rolling stock, with the object of ensuring the safety of travellers. (*signals.*) (*Communicated by Léon Edouard Laurency.*)	1267	4th May 1866	William Edward Gedge.
Machinery or apparatus for actuating railway signals and points.	1303	7th May 1866	James Brown.
Self-acting fire-alarms (*Communicated by Charles Dion.*)	1376	14th May 1866	John Henry Johnson.
Improvements in and connected with thief and fire-proof safes.	1387	16th May 1866	John Sacheverell Gisborne.
Gas hydrometers, which may also be employed as thermometers. (*or for alarms.*) (*Communicated by Joseph Jean Marie Durand and Celestin Pichoin.*)	1470	26th May 1866	Baldwin Fulford Weatherdon.
An improved signal bell for registering on a dial plate all signals given by hammer blows or knocks from the pit bottom to the engine man or winder at the pit top, or from any other place to another where signals are or may be adapted for transmission by blows.	1512	31st May 1866	John Punshon.
Self-acting railway signals	1540	2nd June 1866	Joseph Knight.
Electro-magnetic striking attachments for paper ruling machines. (*Communicated by Maltby Kingston Pelletreau and Ellicott David Averell.*)	1569	7th June 1866	John Garrett Tongue.
Mode of transmitting messages by the electric or magnetic telegraph.	1646	19th June 1866	Francis John Bolton.
Working, governing or locking of railway signals and switches.	1681	23rd June 1866	Henry Hill.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIGNALS, &c.—*continued.*			
Construction of general electric telegraphic machines and the mode of working them.	1725	28th June 1866	François Thierry Hubert. Henry David Green Truscott.
Construction and arrangement of self-acting railway signals.	1766	3rd July 1866	Henry Wootton.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses.	1803	9th July 1866	William Baines.
Means of communication by signals between passengers, guards and drivers of railway trains.	1815	11th July 1866	Isaac Gregory.
Mile posts and other indicators or signs used on railways and other places - - -	1877	18th July 1866	John Goad. Edmond Goad.
Machinery or apparatus for actuating and regulating railway points and signals - -	1963	30th July 1866	John M'Kenzie. Thomas Clunes. Walter Holland.
Double hydrostatic scales for determining the load of ships or boats. (*and automatic alarm.*) (*Communicated by Wilhelm Oscor Reim.*)	2041	8th Aug. 1866	William Clark.
An improved and simplified code of signals to be used by day or night, at sea or upon land, with flags and ventilating lamps.	2085	15th Aug. 1866	William James Current.
Certain improvements in self-acting fixed and repeating portable means for signalling on railways - - - - - -	2094	15th Aug. 1866	Thomas Fleet. William Payne. Frederick Rock.
Communication between the guard and passengers or any other persons in a railway carriage or train - - - - - -	2097	15th Aug. 1866	John William Hoffman. George Rowe Wilson.
Permanent way of railways and signals for working the same - - - - - -	2160	23rd Aug. 1866	James Livesey. John Edwards.
Improved apparatus to facilitate communication between the passengers and guards or drivers of railway trains.	2163	23rd Aug. 1866	William Harrison.
Apparatus for working switches and signals of railways.	2185	25th Aug. 1866	William Lancaster Owen.
An improved apparatus or detector for rendering safes secure from burglary.	2256	3rd Sept. 1866	Albert Whitford Hosking.
Signalling an alarm from railway carriages when in motion.	2282	5th Sept. 1866	Henry Knox.
Steam whistles - - - - - -	2288	6th Sept. 1866	William Cuthbert.
Apparatus for signalling on railway trains and for other like purpcses.	2295	7th Sept. 1866	Alfred Henry Hart.
Immediately giving the alarm in case of fire in any building or ship whatsoever, wherever it may be placed.	2349	12th Sept. 1866	George Benjamin Vaughan Arbuckle.
Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Emile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Arranging and combining apparatus for communicating between the guard, engine driver and passengers in a railway train.	2542	3rd Oct. 1866	Charles Ernesto Spagnoletti.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIGNALS, &c.—*continued.*			
A new or improved markers' butt or mantlett, together with an improved danger flag and signals for rifle shooting.	2729	23rd Oct. 1866	Robert Thomas Williams.
Working railway signals - - - - -	2747	24th Oct. 1866	Sir Eustace Fitzmaurice Piers.
Improved signalling apparatus for use on railways -	2752	25th Oct. 1866	William Denton. Joseph Whitaker. Edwarde Brooke.
Pneumatic signal apparatus or means for giving alarms in case of fire, or for indicating variations of temperature for other useful purposes.	2818	31st Oct. 1866	John Scott.
Apparatus relating to railway switches, signals and stop blocks - - - - - - -	2838	1st Nov. 1866	James Deas. Richard Christopher Rapier.
Means of intercommunication between the several parts of railway trains.	2849	3rd Nov. 1866	James Graham Tatters.
Improved automatic means and apparatus to give warning of the dangerous existence of fire in warehouses, ships and other structures and places.	2862	3rd Nov. 1866	John Sacheverell Gisborne.
Arranging and combining apparatus for communicating between the guard, engine driver and passengers in a railway train.	2880	6th Nov. 1866	Charles Ernesto Spagnoletti.
Certain improvements in apparatus for rendering the security of safes and other depositories more effectual - - - - - - - -	2894	7th Nov. 1866	Walter Goodbrand. Thomas Eccles Holland.
Locks - - - - - - - - *(with signal bell.)* *(Communicated by Auguste Léon Gennerat.)*	2987	14th Nov. 1866	William Clark.
Electric telegraphs - - - - *(signalling through long cables.)*	3038	19th Nov. 1866	Josiah Latimer Clark.
Distance signals on railways - - - -	3068	22nd Nov. 1866	Richard Holiday.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - -	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Electric signals for use on railways - - - -	3089	24th Nov. 1866	Edward Funnell.
Signals to be used upon railways - - - -	3092	24th Nov. 1866	Henry Martyn Clements.
Apparatus for transmitting and recording messages or signals.	3094	24th Nov. 1866	Richard Bolton Jones.
Improvements in and connected with steam-engines	3143	29th Nov. 1866	Joshua Field.
An improved apparatus for the delivery of fog signals upon railways.	3168	3rd Dec. 1866	Thomas Barker.
Signalling apparatus for railway trains - -	3182	4th Dec. 1866	John Smeeton.
Means of communication between stations and railway trains in motion, and between passengers, guards and engine-driver.	3201	5th Dec. 1866	Henry Finch Swears.
Railway carriages and waggons - - - - *(operating steam whistles.)* *(Communicated by Samuel Maynard.)*	3256	11th Dec. 1866	Clinton Edgcumbe Brooman.
Certain improvements in facilitating communication between passengers and guard on railways.	3287	14th Dec. 1866	Albert Whitford Hosking.
Improvements in steering apparatus, referring to a steering telegraph and rudder indicator, and a steam steering engine.	3321	18th Dec. 1866	John McFarlane Gray.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SIZING, WARPING, BEAMING AND PREPARING YARNS FOR WEAVING.			
Machinery or apparatus for warping and making leashes in warps for tape-sizing machines	159	17th Jan. 1866	John Wyld. John Kershaw.
Machinery or apparatus for sizing or preparing yarns or warps to be woven	271	27th Jan. 1866	Samuel Cook. William Henry Hacking.
Bleaching, dyeing, printing and sizing cotton and other yarns or threads.	468	14th Feb. 1866	James Barlow.
An improved composition or preparation for sizing cotton, linen or woollen yarns, and other similar substances	674	6th March 1866	George Haworth. Thomas Parrington. William Hudson.
Machinery or apparatus to be employed for sizing or dressing yarns or threads.	940	2nd April 1866	Robert Dewhurst.
Certain improvements in connection with sizing machines or tape legs.	1070	16th April 1866	Samuel Bennett.
Machinery for warping, dressing, sizing and beaming yarn.	1088	18th April 1866	William Bullough.
Improved machinery for warping or preparing warps for weaving.	1103	19th April 1866	Archibald Turner.
Machinery for hammering cylinders and other articles of sheet metal (*for sizing machines.*)	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Machines for winding or warping and drying yarns	1911	23rd July 1866	Thomas Andrews.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.	2603	9th Oct. 1866	James Conlong.
Improvements in and apparatus for sizing cotton warps.	2659	15th Oct. 1866	George Lake, jun^{r}.
Certain improvements in the preparation of size and in apparatus connected therewith.	3311	17th Dec. 1866	Henry Hall.
Improved machinery or apparatus for sizing cotton, flax, hemp and other thread or yarn.	3385	22nd Dec. 1866	François Beltzer.
Improvements in or applicable to machines for sizing yarns or threads preparatory to weaving, part of which improvements are applicable to other purposes	3397	26th Dec. 1866	James Fletcher. William Carr.
SMOKE PREVENTION; BURNING AND CONDENSING SMOKE; SAVING FUEL.			
Furnaces	5	1st Jan. 1866	Thomas Prideaux.
Improvements applicable to furnaces or fireplaces, for the purpose of more effectually and economically consuming the fuel therein.	25	3rd Jan. 1866	Bewicke Blackburn.
Improvements in the combustion of fuel and in the furnaces and apparatus employed therein.	29	4th Jan. 1866	James Hiscocks.
Steam-engine boilers (*economising fuel.*)	177	19th Jan. 1866	Richard Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SMOKE PREVENTION, &c.—*continued.*			
The improvement of the wheels of carriages, waggons, trucks and other rolling stock in use on railways, excepting those of breaks and locomotive engines, whereby the traction power of the latter is relatively greatly increased. (*saving fuel.*)	182	20th Jan. 1866	Reinhold Edward Kaulbach.
An improved generator for steam-engines - - (*saving fuel.*) (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*smokeless furnace.*)	265	26th Jan. 1866	Henry Sherwood.
Furnaces for steam-boilers and for other purposes -	336	3rd Feb. 1866	Thomas Molden.
Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (*economising fuel.*) (*Communicated by Charles Achille Tranchant.*)	371	7th Feb. 1866	Charles Denton Abel.
Improvements in the construction of furnaces and kilns employed in the manufacture of glass, and in the heating and burning of articles of glass and earthenware - - - - - (*economising fuel.*)	399	9th Feb. 1866	Edward Bevan. Abel Fleming.
Apparatus for effecting the consumption of smoke in steam-boiler and other similar furnaces.	487	15th Feb. 1866	Charles Gall.
An even balanced tubular slide valve for steam or other engines. (*saving fuel.*)	607	27th Feb. 1866	Joseph Trent.
Steam-boiler furnaces - - - -	621	1st March 1866	James Daly Dow.
Improvements in the manufacture of zinc and in the construction of furnaces connected therewith, which latter improvements are also applicable to other metallurgical processes. (*effecting economy of fuel.*)	671	5th March 1866	Charles William Siemens.
Improved means of preventing the smoking of chimnies and flues, and for the curing of smokey chimnies and flues, and for preventing down draught of chimnies and flues.	741	12th March 1866	Stephen Jakins.
Improvements relating to the boilers and engines of steam ships. (*clearing off smoke.*)	759	14th March 1866	John Elder.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.
The prevention or consumption of smoke -	821	20th March 1866	William Naylor.
Improved means or apparatus for generating steam in steam-boilers. (*diminishing smoke.*)	878	24th March 1866	Robert Newton.
Construction of furnaces for the prevention of smoke.	990	6th April 1866	John Chesters.
Means of and apparatus for preventing or curing smoky chimnies.	991	6th April 1866	William Cooke.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SMOKE PREVENTION, &c.—*continued.*			
Improvements in collecting or condensing and utilizing the fumes given off by furnaces used in the manufacture of copper, and in other metallurgical operations, which improvements may also be applied to the collecting or condensing of fumes from other sources - - -	1068	19th April 1866	William Oldham. Henry Penn. Charles Eades.
Improvements in fire-places whereby the fuel used in such fire-places will be more readily ignited and a more complete combustion of such fuel effected.	1111	20th April 1866	Thomas Prideaux.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Furnaces and apparatus for separating heated gases, fumes or vapours from each other and from solid or liquid bodies - - -	1173	26th April 1866	William Edmond. Adolf Gurlt.
Increasing the expansive power of steam - - (*saving fuel.*)	1184	27th April 1866	Joseph Taylor.
Improvements in the arrangement of furnaces and apparatus connected therewith, for facilitating the combustion of smoke, and for preventing the cold air from going into the flues during the act of firing.	1210	28th April 1866	William Begg.
Construction of furnaces or fire-places for economizing the fuel employed for warming, heating and ventilating buildings. (*economising fuel.*)	1252	2nd May 1866	David Urquhart.
Apparatus for consuming smoke - - -	1253	2nd May 1866	John Botterill.
An improved combination of apparatus fitting within every sort of chimney, and preventing any smoke being driven back into apartments. (*Communicated by Louis Charlemagne Bricoteaux and Louis Jules Bricoteaux.*)	1309	8th May 1866	William Edward Gedge.
Construction of steam-boilers - - - (*economising fuel.*)	1375	14th May 1866	Thomas Holt.
Furnaces and other fire-places - - - (*Communicated by Frédéric Marie Piret and Eugène Michel.*)	1395	16th May 1866	William Clark.
Improvements in furnaces for obtaining perfect combustion of fuel.	1398	17th May 1866	Josiah Hampton.
Steam generators - - - - -	1408	18th May 1866	William Alexander Lyne
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel - - - - -	1492	29th May 1866	James Davenport Wheeley. Jacob Jones Storer.
Mode of and apparatus for heating bakers' ovens -	1608	13th June 1866	John Lunt.
Improvements in apparatus for and in the method of effecting the combustion of fuel. (*Communicated by Jakob Bührer and Carl Hamel.*)	1611	13th June 1866	Astley Paston Price.
The better combustion of fuel in steam-boilers' and other furnaces.	1658	20th June 1866	James Abbott.
Marine steam-engines - - - - (*economising fuel.*)	1802	9th July 1866	John Elder.
Certain improvements in furnaces - -	1892	21st July 1866	Richard Hooper.
Improved means or apparatus for consuming smoke in the furnaces of steam-boilers, also in other furnaces where applicable.	1901	21st July 1866	Robert Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SMOKE PREVENTION, &c.— *continued.*			
Producing and super-heating steam - - (*Communicated by James Farquharson M'Kenzie.*)	1913	23rd July 1866	George Tomlinson Bousfield.
Steam generators - - - - - (*Communicated by Henry Petitpierre.*)	1941	26th July 1866	Henri Adrien Bonneville.
Apparatus for regulating the supply of water and other fluids to steam-boilers and other receptacles. (*and saving fuel.*) (*Communicated by Michel Hervier and Léon Guizot.*)	1955	28th July 1866	Charles Denton Abel.
An improved method of promoting combustion of fuel in steam-boiler furnaces and other furnaces. (*Communicated by Clark Fisher.*)	1985	1st Aug. 1866	William Edward Newton.
A smoke consuming heater - - -	2002	2nd Aug. 1866	George Washington Fair.
Improvements in the combustion and prevention of smoke, and in increasing the heating power of fuel.	2072	13th Aug. 1866	Désiré Marchal.
A new or improved apparatus for consuming smoke from gas and other lamps.	2096	15th Aug. 1866	Charles Brown.
An improved heating apparatus - - - (*Communicated by Sidney Smith.*)	2105	16th Aug. 1866	William Robert Lake.
Puddling furnaces - - - - (*Communicated by Christopher de Graff Baker, Jacob Harlan and Joseph Bell.*)	2119	17th Aug. 1866	William Clark.
Gearing or apparatus for driving scrapers employed in cleansing the flues and tubes of boilers and heating apparatus.	2184	25th Aug. 1866	Edward Green.
An improved smoke-consuming fire-place - (*Communicated by Charles René Marcadier.*)	2263	3rd Sept. 1866	Henri Adrien Bonneville.
Apparatus for consuming smoke and economising fuel.	2458	25th Sept. 1866	Henry Turner.
Improvements in puddling and heating furnaces, and other furnaces used in the manufacture of iron and steel.	2494	27th Sept. 1866	John Burgum.
Construction and arrangement of retorts and settings in combination with machinery or apparatus for the manufacture of coal or other gases. (*saving fuel.*)	2528	1st Oct. 1866	Percival Ashton Batchelor.
Boilers and boiler furnaces - - -	2546	3rd Oct. 1866	Henry Fisher.
Improvements in furnaces or fire-places and in the fire-bars to be used therein.	2586	8th Oct. 1866	James Robertson.
Furnaces and cupolas - - - -	2627	11th Oct. 1866	George Hadfield.
Improvements in furnaces and in constructing and actuating the moveable fire bars of furnaces	2667	16th Oct. 1866	John Griffiths. John Beard.
An improved method of consuming smoke in furnaces.	2738	23rd Oct. 1866	William Harrison.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*saving fuel.*)	2744	24th Oct. 1866	Joseph Watts.
Apparatus for lighting and heating - - (*smoke preventing.*) (*Communicated by Jean Baptiste Marie Amédée Bourreiff.*)	2755	25th Oct. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SMOKE PREVENTION, &c.— *continued.*			
Lamp glasses or chimneys - - - - (*Communicated by Joseph Lallemand and Godefroi Auguste Guillaume Wagener.*)	2823	31st Oct. 1866	William Clark.
Furnaces for steam-boilers - - -	2887	7th Nov. 1866	William Humphrey.
Improvements in furnaces for burning or consuming smoke, more especially applicable to the furnaces of boilers.	2907	8th Nov. 1866	John James Bagshaw.
Chimney tops for the purpose of preventing or curing the down draught of smoke.	2949	10th Nov. 1866	John Denley.
Chimney tops or cowls - - - -	2965	13th Nov. 1866	George Whitehead.
An improved method for consumption of smoke and saving of fuel, without the least loss of steam power.	3001	15th Nov. 1866	Edward Dawson.
Steam-boilers - - - - (*Communicated by Laurent Chevalier.*)	3056	21st Nov. 1866	William Clark.
Certain improvements in apparatus for economising fuel by retaining and applying heat to the heating of water.	3081	23rd Nov. 1866	John Robinson.
Certain improvements in apparatus for economising fuel by retaining and applying heat to the heating of water in locomotive boilers.	3082	23rd Nov. 1866	John Robinson.
Obtaining useful products from certain materials produced in the process of galvanising or coating iron with zinc. (*collecting and condensing vapours.*)	3118	27th Nov. 1866	Charles Crockford.
Improvements in compound steam-engines and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Chimney tops for the prevention of smoky chimneys	3188	4th Dec. 1866	Daniel Sutcliffe Chater.
Construction of stoves for cooking or other purposes (*saving fuel.*)	3274	13th Dec. 1866	Celeste Sinibaldi.
Steam-boiler and other furnaces - - -	3309	17th Dec. 1866	John Hauworth.
Apparatus for producing a draught in furnaces and for purifying the smoke therefrom. (*Communicated by Claude Moret and Felix Raux.*)	3371	21st Dec. 1866	William Clark.
SOAP.			
A new or improved detergent to be used in the washing or cleansing of wool. (*Communicated by Charles Dyonise Reinfeld.*)	65	9th Jan. 1866	John Henry Johnson.
Manufacture of ammoniacal and ammoniated soap -	130	15th Jan. 1866	John Hooker.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts.	383	8th Feb. 1866	Pierre Alexis Francis Boboeuf.
Preparing materials for preventing and removing incrustation in steam-boilers, for lubricating machinery, and for scouring cloth and other substances. (*in lieu of soap.*)	484	15th Feb. 1866	Peter Ward.
Certain improved agents suitable for cleaning and such like purposes.	857	21st March 1866	Charles Rozière.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SOAP—*continued.*			
Apparatus for evaporating or recovering lees -	1049	13th April 1866	Alexander Swan.
An improved process for purifying animal and vegetable oils, and all other kinds of oils, except mineral oils. (*residue applicable to soap making.*)	1053	13th April 1866	Auguste Jaumenne.
Improvements in the manufacture of soap, or in the preparation of materials applicable to such manufacture or for dressing or finishing textile fabrics.	1058	14th April 1866	Thomas Gray.
Improvements in and in apparatus for evaporating or recovering lees.	2671	16th Oct. 1866	Alexander Swan.
A new or improved detergent material applicable to the cleansing of wool and other fibrous substances, and to all purposes where coarse soap is used - - - - -	3093	24th Nov. 1866	James Mitchell. William Cumming Laird.
Preparation and application of certain fatty bodies - (*manufacture of soap.*) (*Communicated by Mathias Paraf-Javal and Eugene Paraf-Javal.*)	3307	15th Dec. 1866	Clinton Edgcumbe Brooman.
Manufacture of soap - - - - -	3432	29th Dec. 1866	George Payne.
SOWING SEEDS AND DISTRIBUTING MANURE.			
Apparatus for sowing grain or seed and performing certain other operations connected therewith. (*Communicated by Alfred Jean Baptiste Bruillon and Pedro Martinez Lopez.*)	18	3rd Jan. 1866	Henri Adrien Bonneville.
Machinery for rolling and clod crushing - - (*for seed drilling.*)	266	27th Jan. 1866	John Spencer.
An improved method of applying to land liquid sewage, and also of applying to land water, pure or mixed with other matter.	431	12th Feb. 1866	James Pilbrow.
Machinery for planting potatoes - - -	633	1st March 1866	Edward Loomes.
Apparatus for distributing water and liquid manure	710	8th March 1866	William Russ. Thomas William Wedlake.
Carts for distributing water, liquid manure and other fluids over roads and lands - -	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
A pneumatic method for the inoffensive removal of all fluids, solids and gases from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
Mode of applying sewage to land - - -	1373	14th May 1866	George Hinton Bovill.
Machines for dibbling or planting grain and seed, and an improved seed feeder and meter for planting machines.	3223	6th Dec. 1866	John Freer.
Improvements in treating excrementitious matters and other refuse matters, for the purpose of obtaining valuable products therefrom, and in apparatus to be employed for that purpose. (*also manuring and irrigating.*)	3401	18th Dec. 1866	William Bradburn.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SOWING, &c.—*continued.*			
New or improved means for the prevention of rot in potatoes and grapes, and the similar blight in trees, fruits, vegetables, insects and animals. (*defending from lightning.*) (*Communicated by John Francis Bennett.*)	3403	28th Dec. 1866	Charles Denton Abel.
SPINDLES; SPINDLES AND FLYERS.			
Machinery or apparatus for preparing and spinning cotton and other fibrous materials - - -	19	3rd Jan. 1866	James Pilling. Robert Scaife.
Manufacture of toothed wheels for gearing shafts, axles and spindles.	95	11th Jan. 1866	Robert Mathers.
Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts - - -	293	30th Jan. 1866	Samuel Bradley Ardrey. Samuel Beckett. Walton Smith.
Improvements in or applicable to machinery or apparatus for spinning and doubling fibrous substances, parts of which improvements are also applicable to other purposes. (*lubricating spindles.*)	448	13th Feb. 1866	John Townsend.
An improved method in the rolling of coach spring, spindle and sheet steel.	464	14th Feb. 1866	William Unwin.
Flyers used in machinery for preparing, spinning or doubling cotton, wool, flax, silk or other fibrous materials.	614	28th Feb. 1866	John Billington Booth.
Machinery for preparing, spinning and twisting flax, cotton, wool and other fibrous substances	808	19th March 1866	John Campbell. Samuel M'Kinstry. Thomas Wilson.
Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances. (*lubricating spindles.*)	1031	11th April 1866	Godfrey Anthony Ermen.
Machinery for spinning and doubling - - (*lubricating spindles.*)	1112	20th April 1866	Charles Hastings. James Briggs. James Law. Hiram Mitchell.
Spindles applicable to all machines for spinning and doubling cotton, wool, silk and other fibrous substances, as well as to all twiners.	1151	24th April 1866	Joseph Marie Ryo-Cattez.
Steps for the spindles of spinning frames - - (*Communicated by Thomas Marsh.*)	1279	4th May 1866	George Tomlinson Boccfield.
Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearing" of any vertical shafts. (*Communicated by Thomas Marsh.*)	1281	5th May 1866	James Marsh.
An improved method of and apparatus for lubricating the spindles of cap spinning and doubling frames, which apparatus is also applicable as a cleaner to flyer spinning and doubling frames	1853	16th July 1866	Robert Clough. Prince Smith, the elder.
Certain improvements in flyers for spinning, roving or slubbing cotton or other fibrous substances -	1862	17th July 1866	Thomas Westley. Thomas Richard Beaumont.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINDLES, &c.—*continued.*			
Steps or foot bearings for spindles - - (*Communicated by Thomas Marsh and David Fales.*)	2027	6th Aug. 1866	William Robert Lake.
Certain improvements in the method of lubricating vertical spindles or shafts, and in the apparatus for effecting the same. (*Communicated by Thomas Marsh.*)	2421	21st Sept. 1866	James Marsh.
An improved system of spinning the silk from the cocoons of silk-worms, and for the machinery or apparatus employed therein. (*flyers.*) (*Communicated by Jean Meille.*)	2640	12th Oct. 1866	Edward Thomas Hughes.
Machinery for spinning and doubling - -	2702	19th Oct. 1866	John Cresswell Brentall. Robert Edge.
Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (*Communicated by Charles B. Hoard.*)	2806	30th Oct. 1866	Alfred Vincent Newton.
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.
SPINNING AND PREPARING FOR SPINNING.			
I.—Opening, Ginning, Breaking and Cleaning Fibrous Materials.			
Treatment and application of vegetable fibres - (*suitable for weaving.*)	14	2nd Jan. 1866	Werner Staufen.
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials.	39	5th Jan. 1866	James Ronald.
A new or improved detergent to be used in the washing or cleansing of wool. (*Communicated by Charles Dyonise Reinfeld.*)	65	9th Jan. 1866	John Henry Johnson.
Obtaining fibre suitable for spinning and other uses, by the use of a plant not hitherto employed for this purpose - - - - - (*Communicated by Signor Joseph Vanzina d'Etienne.*)	107	12th Jan. 1866	Edward Sutherland. Horatio Sutherland.
An improved mode of treating fur, wool and hair - (*see* "DYEING.") (*Communicated by Alfred Clark Brush.*)	264	26th Jan. 1866	Alfred Vincent Newton.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*obtaining fibres for spinning.*)	265	26th Jan. 1866	Henry Sherwood.
Improvements in softening fibrous materials and in the machinery or apparatus connected therewith - - - - - - -	268	27th Jan. 1866	William Justice. Edward Guild.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Improved machinery for breaking hemp and flax - (*Communicated by Joseph Holford Siddall.*)	333	2nd Feb. 1866	Alfred Vincent Newton.
An improvement in the treatment of rami or rhea fibre, commonly called and known as China or Indian grasses - - - - - - (*for spinning.*)	357	6th Feb. 1866	Peter Augustin Godefroy. John William Mott.
Certain improvements in mechanism for opening and cleaning cotton and other fibrous materials	388	8th Feb. 1866	John Shaw. John Whitaker.
Machinery for hackling and opening hemp and other fibrous materials.	430	12th Feb. 1866	James Tomlinson.
Machinery for preparing fibrous materials for combing or spinning.	559	23rd Feb. 1866	William Tongue.
Preparation of flax, hemp, china grass, jute or other fibrous substances of a similar nature.	588	26th Feb. 1866	Francis Montgomery Jennings.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauzique.*)	659	5th March 1866	Marc Antoine François Mennons.
A new or improved compound preparation to be used in the treatment of jute and china grass. (*Communicated by Georges Hanot.*)	828	20th March 1866	William Clark.
Machinery or apparatus for cleaning and preparing fibrous substances, and for opening twisted yarns and woven fabrics.	869	24th March 1866	Francis Alton Calvert.
Treating lucern root for paper making and weaving purposes, as well as in abstracting soda, salts and coloring matters. (*Communicated by Jean Pierre Caminade.*)	1009	9th April 1866	Baldwin Fulford Weatherdon.
An improved mode of treating flax, hemp and other like fibrous substances.	1082	17th April 1866	Thomas Gray.
An improved machine or apparatus for rippling or seeding flax. (*Communicated by Baron Woldemar von Loewis.*)	1148	23rd April 1866	Charles Denton Abel.
Machinery or apparatus for breaking and scutching flax and hemp. (*Communicated by Baron Woldemar von Loewis.*)	1149	23rd April 1866	Charles Denton Abel.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom.	1160	25th April 1866	John Watson Burton.
Machinery for scutching and preparing flax, hemp or other fibrous materials.	1359	11th May 1866	Edward Brasier.
Machinery or apparatus for cleaning and ginning cotton and other fibrous substances.	1397	17th May 1866	George Macdonald.
Improvements in machinery for preparing and cleaning flax, tow, hemp, cotton, shoddy and other materials employed in textile manufactures and in the manufacture of paper.	1444	23rd May 1866	William Rowan.
Machinery for dressing silk - - -	1452	23rd May 1866	Thomas Greenwood.
Machinery for burring and cleansing wool and other fibrous substances. (*Communicated by Calvin Luther Goddard.*)	1532	1st June 1866	Alfred Vincent Newton.
Mode of and apparatus for treating fibrous materials preparatory to their being spun.	1629	15th June 1866	James Garth Marshall.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
An improvement in saws for cotton gins - -	1758	2nd July 1866	Thomas Cowell Craven.
Treatment and application of vegetable fibres -	1761	2nd July 1866	Werner Staufen.
Cotton gins - - - - - -	1769	3rd July 1866	George Frederick Starnes.
Improvements in and apparatus for dressing or preparing for spinning, hemp, flax, jute, manilla-hemp and other fibrous materials, and for the conversion of ropes and other cordage and textile fabrics into oakum, tow and paper stuff, dressing and cleaning "waste" tow, wool, hair and other like "waste" fibres.	1814	11th July 1866	William Walker.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances - -	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.
Machinery for carding, combing and cleaning cotton and other fibrous substances.	1988	2nd Aug. 1866	Charles Nicolas Plantrou.
Treatment of jute - - - - -	2046	8th Aug. 1866	Allen Oldroyd. Peter Augustin Godefroy.
Mode of treating certain fibrous vegetable substances so as to render them suitable for the manufacture of textile and other fabrics.	2269	4th Sept. 1866	Edward Nelson.
Means or apparatus for the preparation or treatment of flax, tow, hemp and other vegetable fibrous matters.	2375	15th Sept. 1866	Charles Cunningham Connor.
An improved self-acting feeding apparatus for cotton gins - - - - - -	2441	22nd Sept. 1866	Thomas Brace. William Savory.
Processes and machinery for producing fibres suitable for being spun, from rags or remnants of woven or other textile fabrics made of silk, wool, cotton or other fibrous materials.	2497	27th Sept. 1866	Henry Ernest Gilles.
A new or improved self-feeding cotton gin - -	2501	27th Sept. 1866	Jules Alfred Chaufourier.
Improved machinery for preparing wool and other fibrous substances.	2562	4th Oct. 1866	James Ferrabee.
Apparatus for carding the tow of flax, hemp or jute and other fibrous substances, and separating the woody particles therefrom.	2563	4th Oct. 1866	Ferdinand Wilhelm Kaselowsky.
Machinery for separating the woody part from the fibre of flax, hemp or other fibrous substances of the same nature.	2564	4th Oct. 1866	Ferdinand Wilhelm Kaselowsky.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.	2603	9th Oct. 1866	James Conlong.
Machinery or apparatus for opening and cleaning wool and other fibrous materials. (*Communicated by Charles G. Sargent.*)	2626	11th Oct. 1866	Richard Edmund Lazonby.
An improved machine for cleaning and carding wool, cotton and other fibrous substances. (*Communicated by Paul Gauckez.*)	2649	13th Oct. 1866	Louis Rudolph Bodmer.
Certain improvements in cotton gins - - (*Communicated by Frederick Vedova.*)	2753	25th Oct. 1866	John Lacey Davies.
Machinery for separating the fibre of flax or other vegetable substances requiring such treatment.	2774	26th Oct. 1866	Frank Crossley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Machinery or apparatus for opening and cleaning fibrous materials. (*Communicated by Charles G. Sargent.*)	3070	22nd Nov. 1866	Richard Edmund Lawson.
Improvements in the treatment and spinning of jute, hemp, flax and other fibrous substances, and the machinery or apparatus employed therein.	3109	26th Nov. 1866	William Taylor.
Machines driven by human, animal or other power, having a reciprocating motion, as gins, mowing and reaping machines, reciprocating saws and others of that class - - - - -	3236	8th Dec. 1866	William Robertson. Charles James Waddell.
An improvement in the feeding apparatus in cotton gins. (*Communicated by Peter Taylor.*)	3342	20th Dec. 1866	Gerard Brown Finch.
Machinery for cleaning and preparing flax, hemp and other fibrous material, and for reducing the same to tow.	3365	21st Dec. 1866	William Rowan.
Machinery for carding and cleaning fibrous substances.	3387	24th Dec. 1866	Francis Alton Calvert.
Machinery or apparatus for rippling or seeding flax (*Communicated by Baron Woldemar Von Loewis.*)	3444	31st Dec. 1866	Charles Denton Abel.
II.—Carding, Combing and Heckling Fibrous Materials; Making Cards.			
Improvements in or applicable to machinery for combing, dressing and disintegrating hemp, flax, wool, cotton and other fibres and fibrous materials.	39	5th Jan. 1866	James Ronald.
Certain improvements in carding-engines - -	201	22nd Jan. 1866	Jonathan Dearden. Edward Pilkington Holden.
Certain improvements in machinery or apparatus to be employed in preparing cotton and other fibrous substances for spinning - -	230	24th Jan. 1866	William Dore. John Tapley. Joseph Cordwell.
Improved machinery for breaking hemp and flax - (*Communicated by Joseph Holford Siddall.*)	333	2nd Feb. 1866	Alfred Vincent Newton.
Means or apparatus for combing wool and other fibres.	450	13th Feb. 1866	Thomas Whitley.
Machinery for preparing fibrous materials for combing or spinning.	559	23rd Feb. 1866	William Tongue.
Machinery for combing wool and other fibre -	568	23rd Feb. 1866	George Edmund Donisthorpe.
Screw gill boxes or hackle frames - -	866	23rd March 1866	Benjamin Berry the younger. George Bromley.
Improvements in drawing and spinning flax, hemp, china grass and other fibre, and in the apparatus therefor.	993	6th April 1866	Jim Billings Fuller.
Improved machinery for feeding wool and other fibres to preparing and carding-machines.	1000	7th April 1866	William Clissold.
Machinery for combing wool or other fibrous materials - - - - -	1052	13th April 1866	Joseph Jefferson. Cornelius Jefferson. Lazarus Jefferson. Mordecai Jefferson. John Greenway.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Machinery for combing wool or other fibrous substances	1071	16th April 1866	Edward Ash. Thomas Whitley.
Means or apparatus for combing wool and other fibres. (*Communicated by Raphael Ferdinand Tavernier and Joseph François Amédée Tavernier.*)	1123	20th April 1866	William Brookes.
Certain improvements in carding-engines	1217	30th April 1866	John Baron. Edward Tattersall.
Improvements in the treatment of filamentous materials and in machinery or apparatus for combing the same.	1266	4th May 1866	Augustin Morel.
Machinery for preparing wool and other fibrous materials for combing and spinning	1272	4th May 1866	John Bapty. Frederick North.
Machinery for combing wool and other fibres (*Communicated by Amedée Prouvost.*)	1283	5th May 1866	Clinton Edgcumbe Brooman.
Machinery for dressing fibres	1298	7th May 1866	Daniel Chadwick junr. Gustav Albrecht Carl Bremme.
Double cylinder carding-engines (*Communicated by Anton Girardoni.*)	1343	10th May 1866	Louis Rudolph Bodmer.
Machinery for drawing and twisting cotton, wool, flax, hemp, silk and other fibrous substances. (*or carding.*)	1542	2nd June 1866	Alphonse Alexis Bois.
Improved machinery for combing hemp, flax and other fibrous materials.	1543	2nd June 1866	Jules Lecoq.
Certain improvements in carding-engines	1583	9th June 1866	John Moss.
Certain improvements in carding-engines	1606	13th June 1866	Eric Hugo Woldenström. Thomas Wrigley.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances.	1687	25th June 1866	Edward Gerrard Fitton.
Machinery for combing wool and other fibrous substances	1708	27th June 1866	Joseph Northend. John Holmes. William Hopkinson. William Bibby.
Improvements in machinery for preparing and carding and in treating silk waste.	1727	28th June 1866	Samuel Cunliffe Lister.
Manufacture of card cloth	1826	12th July 1866	Joseph Moseley.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding-engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
Machinery for carding, combing and cleaning cotton and other fibrous substances.	1988	2nd Aug. 1866	Charles Nicolas Plantrou.
Carding-engines (*Communicated by Edward Adam Cutler and Charles Bliven.*)	1998	2nd Aug. 1866	George Tomlinson Bousfield.
Machinery or apparatus for combing wool or other fibrous substances.	2128	18th Aug 1866	Samuel Mortimer.
Machinery for preparing, straightening and combing fibrous materials.	2155	22nd Aug. 1866	William Tongue.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Combing wool and other fibre - - - (*Communicated by Cullen Whipple and Elisha Johnson.*)	2190	25th Aug. 1866	George Tomlinson Bousfield.
Improvements in the making of wool guard coverings of gill boxes for the preparing and drawing of wool, silk, mohair and other fibrous substances.	2289	6th Sept. 1866	Pearson Smith.
Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials.	2431	21st Sept. 1866	James Clark.
Machinery for untwisting, separating and combing tarred ropes, for oakum, and for dressing hemp, flax, manilla, jute or other like material.	2459	25th Sept. 1866	William Hunter.
Machinery for carding wool and other fibrous materials. (*Communicated by Célestin Martin.*)	2481	26th Sept. 1866	Henri Adrien Bonneville.
Machinery for weaving wool and other fibrous materials. (*Communicated by Célestin Martin.*)	2482	26th Sept. 1866	Henri Adrien Bonneville.
Apparatus for carding the tow of flax, hemp or jute and other fibrous substances, and separating the woody particles therefrom.	2563	4th Oct. 1866	Ferdinand Wilhelm Kaselowsky.
Machinery or apparatus for combing wool or other fibrous substances - - - - -	2601	9th Oct. 1866	Mathew Mirfield. John Scott.
An improved machine for flattening hackle pins or comb teeth employed in machines for combing wool or other fibrous substances.	2604	9th Oct. 1866	Charles Perry.
Machinery for combing wool and other fibrous substances - - - - - -	2644	12th Oct. 1866	John Pollard. Thomas Whitehead. John Whitehead. Valentine Williamson.
An improved machine for cleaning and carding wool, cotton and other fibrous substances. (*Communicated by Paul Gauchez.*)	2649	13th Oct. 1866	Louis Rudolph Bodmer.
Machinery for combing wool and other fibres - (*Communicated by Amédée Prouvost.*)	2746	24th Oct. 1866	Clinton Edgcumbe Brooman.
Improvements in carding-engines and in apparatus for grinding the rollers or cylinders thereof.	2794	29th Oct. 1866	Samuel Faulkner.
Means or apparatus for combing cotton and other fibres - - - - - - -	2832	1st Nov. 1866	Edouard Tavernier. Henry Walton Whitehead.
Carding-engines - - - - - -	2933	10th Nov. 1866	William Robertson. Charles James Waddell.
Machinery for combing wool and other fibre -	3037	19th Nov. 1866	Thomas Whitley.
Machinery for drilling combs and hackles - -	3087	23rd Nov. 1866	Thomas Richards Harding. Thomas Walter Harding.
Machinery for carding wool and other fibrous substances.	3121	27th Nov. 1866	James Law.
An improved machine for doubling slivers of cards, and forming laps of cross layers, for second-carding of wool, cotton and other fibrous substances.	3168	3rd Dec. 1866	Frederic Waddington.
"Screw gill boxes" for preparing wool and other fibrous substances - - - - -	3218	6th Dec. 1866	Reuben Ackroyd. William Maud.
Machinery for combing wool and other fibrous substances.	3251	10th Dec. 1866	William Hopkinson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Improved machinery for assorting silk and other fibres.	3260	11th Dec. 1866	James Varley.
Machinery or apparatus for combing wool or other fibrous substances - - - -	3263	12th Dec. 1866	James Studley. Edwin Jackson.
Machinery or apparatus for carding wool - - (*Communicated by Voelckel-Boell.*)	3322	18th Dec. 1866	William Edward Gedge.
Machinery for carding and cleaning fibrous substances.	3387	24th Dec. 1866	Francis Alton Calvert.
III.—Roving, Slubbing, Spinning, Twisting, Doubling and Throwing Fibrous Materials.			
Machinery or apparatus for preparing and spinning cotton and other fibrous materials - -	19	3rd Jan. 1866	James Pilling. Robert Scaife.
Improved means of lubricating the spindles of cap and cup frames employed in spinning and twisting fibrous substances, applicable also for lubricating other frictional surfaces of machinery -	160	17th Jan. 1866	Edmund Feather. Thomas Feather. John Luty.
Improved machinery for spinning yarn - - (*Communicated by Carl Schneichel.*)	178	19th Jan. 1866	Alfred Vincent Newton.
Machinery or apparatus for grinding or glazing spindles for preparing and spinning machinery, and other spindles or shafts - - -	293	30th Jan. 1866	Samuel Bradley Ardrey. Samuel Beckett. Walton Smith.
Mules for spinning and doubling - - -	335	3rd Feb. 1866	John Warburton. Peter Warburton. Smith Barnes.
Improvements in top rollers used in machinery or apparatus for spinning cotton and other fibrous substances, which are also applicable to machinery or apparatus used for preparing fibrous materials to be spun.	400	9th Feb. 1866	Joseph Sutcliffe.
Manufacture of rings for the "ring and traveller" system of spinning or twisting fibrous materials.	407	9th Feb. 1866	James Higgins.
Spinning and drawing rollers - - - (*Communicated by Henry Hall, Thomas Finlay and Isaac Schlichter.*)	408	9th Feb. 1866	John Henry Johnson.
Improvements in or applicable to machinery or apparatus for spinning and doubling fibrous substances, parts of which improvements are also applicable to other purposes.	448	13th Feb. 1866	John Townsend.
Preparing linen yarn - - - - (*see* "DRYING.")	488	15th Feb. 1866	Colin Mather.
Improvements in weighting top pressing rollers for dandy roving and spinning of wool, worsted, silk, mohair, alpaca and other fibrous substances.	516	19th Feb. 1866	Prince Smith the elder.
Machinery for preparing fibrous materials for combing or spinning.	559	23rd Feb. 1866	William Tongue.
Flyers used in machinery for preparing, spinning or doubling cotton, wool, flax, silk or other fibrous materials.	614	28th Feb. 1866	John Billington Booth.
Machinery for preparing fibrous materials, commonly called slubbing, intermediate and roving frames.	758	13th March 1866	Leonard Kaberry.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Machinery for preparing, spinning and twisting flax, cotton, wool and other fibrous substances	808	19th March 1866	John Campbell. Samuel M'Kinstry. Thomas Wilson.
Machinery for spinning and doubling - - (*Communicated by Heinrich Zwanziger and William Henry Rhodes.*)	815	20th March 1866	Henry Bernoulli Barlow.
Certain improvements in self-acting mules for spinning. (*Communicated by Paul Sée and Louis Couvreur.*)	831	21st March 1866	Louis Rudolph Bodmer.
Preparing and treating gun cotton - - (*forming rovings.*)	953	3rd April 1866	Eustace Carey Prentice.
Improvements in drawing and spinning flax, hemp, china grass and other fibre, and in the apparatus therefor.	993	6th April 1866	Jim Billings Fuller.
Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous substances.	1031	11th April 1866	Godfrey Anthony Ermen.
Apparatus for cleaning the roller beams and fly boards of machinery used for preparing and spinning cotton and other fibrous materials.	1034	11th April 1866	Thomas Kay Whitehead.
Apparatus for spooling and copping threads or yarns. (*Communicated by David Grandy Jun' and Emile Queulain.*)	1042	12th April 1866	William Clark.
Machinery for spinning and doubling - -	1112	20th April 1866	Charles Hastings. James Briggs. James Law. Hiram Mitchell.
Spindles applicable to all machines for spinning and doubling cotton, wool, silk and other fibrous substances, as well as to all twiners.	1151	24th April 1866	Joseph Marie Ryo-Catteau.
Improvements in the manufacture of yarns and in the machinery or apparatus employed therefor.	1189	27th April 1866	Peter Sanderson.
Spinning machinery - - - - -	1204	28th April 1866	William Sunderland. George Stell.
Manufacture of yarns or threads and woven fabrics, from wool or wool combined with other materials. (*Communicated by Stanislas Vigoureux.*)	1259	3rd May 1866	George Tomlinson Bousfield.
Steps for the spindles of spinning frames - (*Communicated by Thomas Marsh.*)	1279	4th May 1866	George Tomlinson Bousfield.
Certain improvements in apparatus for lubricating the spindles employed in machinery for spinning, doubling or twisting fibrous materials, which is also applicable for lubricating the "foot bearings" of any vertical shafts. (*Communicated by Thomas Marsh.*)	1281	5th May 1866	James Marsh.
Improvements in cordage, webbing and similar articles, and in machinery for manufacturing the same. (*Communicated by James Amiraux Bazin.*)	1318	8th May 1866	George Tomlinson Bousfield.
Certain improvements in machinery for preparing, spinning and doubling cotton or other fibrous substances - - - - -	1353	11th May 1866	William Cameron Moore. Jonathan Mort Haslam. John Robinson.
Machinery for preparing and spinning hemp and other fibrous substances. (*Communicated by Ernest Bazin.*)	1426	21st May 1866	Henry Bernoulli Barlow.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Spinning frames	1463	25th May 1866	Thomas Blain.
Preparing fibrous materials for spinning and weaving. (*Communicated by Stanislas Vigoureux.*)	1527	31st May 1866	George Tomlinson Bousfield.
Machinery for drawing and twisting cotton, wool, flax, hemp, silk and other fibrous substances.	1542	2nd June 1866	Alphonse Alexis Bois.
Improvements in or applicable to machinery or apparatus for spinning worsted or other fibrous substances, known as cap-frames	1553	5th June 1866	James Marsland Tankard. John Cockcroft.
Spinning frames	1588	11th June 1866	David Cochrane.
Machinery for preparing and spinning flax, tow, jute and other fibrous substances.	1687	25th June 1866	Edward Gerrard Fitton.
An improved material for covering rollers used in the various processes of making cotton, linen and other yarns	1741	30th June 1866	James Humber. George Haworth.
Spinning frames	1747	30th June 1866	Charles Demain Knapton.
An improvement applicable to bobbins used in preparing and spinning machinery. (*Communicated by Benjamin Wilbur.*)	1804	9th July 1866	Alfred Vincent Newton.
Preparing and spinning wool and other fibrous substances	1850	14th July 1866	Louis John Crossley. Joseph Sunderland.
An improved method of and apparatus for lubricating the spindles of cap spinning and doubling frames, which apparatus is also applicable as a cleaner to flyer spinning and doubling frames	1853	16th July 1866	Robert Clough. Prince Smith, the elder.
Certain improvements in flyers for spinning, roving or slubbing cotton or other fibrous substances	1862	17th July 1866	Thomas Westley. Thomas Richard Beaumont.
Improved machinery for spinning yarn (*Communicated by Carl Schneichel.*)	1864	17th July 1866	Alfred Vincent Newton.
Certain improvements in mules for spinning	1869	18th July 1866	John McVitie.
Machinery for condensing wool or other fibrous substances	1882	19th July 1866	Samuel Longbotton. Thomas Shaw.
Machinery or apparatus for cleaning and preparing cotton or other fibrous substances	1906	23rd July 1866	Evan Leigh. Henry Thomas Palmer. William Edward Whitehead.
Certain improvements in machinery or apparatus for spinning and doubling cotton or other fibrous material.	2037	8th Aug. 1866	John Sibley.
Improvements in slubbing and roving frames, a modification of which is applicable to winding and throstle frames	2131	20th Aug. 1866	Samuel Radcliffe Platt. Edmund Hartley.
Improvements in the manufacture of tin drums or rollers used in machinery for preparing and spinning fibrous materials, applicable also to the manufacture of other drums, rollers or tubes of metal, and in machinery or apparatus connected therewith.	2188	25th Aug. 1866	George Little.
Machinery for spinning flax and other like fibrous materials.	2275	4th Sept. 1866	George Lowry.
Improved machinery for twisting into bands, cotton, linen, woollen, silk, hemp or wire.	2324	10th Sept. 1866	Peter John Railton David Walton.
Spinning wool and other fibrous materials (*Communicated by Ferdinand Spineux.*)	2382	17th Sept. 1866	John Dunn.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Machinery for preparing and spinning flax, tow, jute and other fibrous materials - -	2462	25th Sept. 1866	John Lawson. Edward Gerrard Fitton.
Machinery or apparatus for spinning cotton, silk and other fibrous substances.	2529	2nd Oct. 1866	William Redman.
Improved machinery for preparing wool and other fibrous substances.	2562	4th Oct. 1866	James Ferrabee.
Machinery or apparatus for spinning cotton and other fibrous materials.	2596	9th Oct. 1866	James Wood Baker.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.	2603	9th Oct. 1866	James Conlong.
An improved system of spinning the silk from the cocoons of silk-worms, and for the machinery or apparatus employed therein. (*Communicated by Jean Meille.*)	2640	12th Oct. 1866	Edward Thomas Hughes.
Machinery for spinning and doubling - -	2702	19th Oct. 1866	John Cresswell Brentall. Robert Edge.
Certain improvements in machinery for spinning, doubling and twisting wool and other fibrous materials. (*Communicated by Charles B. Hoard.*)	2806	30th Oct. 1866	Alfred Vincent Newton.
An improved mode of covering metal rollers used in the manufacture of flax, hemp, jute, silk and other fibrous substances, with leather - -	2807	30th Oct. 1866	Andrew Fairbairn. Thomas Stuart Kennedy. John William Naylor.
Self-acting mules - - - - -	2814	31st Oct. 1866	William Robertson.
Self-acting mules - - - - -	2815	31st Oct. 1866	John Dodd.
Certain improvements in machinery or apparatus for preparing and spinning cotton and other fibrous materials - - - -	2831	1st Nov. 1866	William Shorrock Ashton. James Johnson.
Preparing and spinning machinery - -	2888	7th Nov. 1866	John Shaw.
Machinery for spinning fibrous substances -	2890	7th Nov. 1866	John Combe.
Machines for spinning and doubling cotton and other fibrous materials - - - -	2941	10th Nov. 1866	Robert Lakin. John Wain.
Machines for doubling cotton and other fibrous materials.	2968	13th Nov. 1866	John Harding.
Spinning machinery - - - - - (*Communicated by Guillaume Joseph Snakers.*)	3010	16th Nov. 1866	Clinton Edgcumbe Brooman.
Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances - - - - - - -	3069	22nd Nov. 1866	Josiah Berry. Joseph Brooke Turner. Charles Vickerman.
Certain improvements in apparatus or mechanism for preparing and spinning cotton or other fibrous substances.	3102	26th Nov. 1866	John Buckley.
Improvements in woolen and other yarns or twisted strands, and in the machinery or apparatus employed in treating the same. (*see* "FINISHING.") (*Communicated by Edward Tucker Cooper Lutton.*)	3115	27th Nov. 1866	John Henry Johnson.
Mules for spinning and doubling cotton and other fibrous substances.	3119	27th Nov. 1866	John Kerfoot.
Machinery for spinning and doubling - -	3155	1st Dec. 1866	Peter M'Gregor.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPINNING, &c.—*continued.*			
Certain improvements in apparatus to be employed in the preparation and manufacture of cotton, wool, silk and other fibrous substances.	3157	1st Dec. 1866	William Crighton.
Rolls of spinning, drawing and other machines (*Communicated by Edward Livingston Perry.*)	3161	1st Dec. 1866	William Edward Newton.
Improvements in the manufacture of yarns and in the machinery or apparatus employed therefor	3216	6th Dec. 1866	Peter Sanderson. Robert Sanderson.
Improvements in the manufacture of yarns used for weaving textile fabrics and in the machinery or apparatus employed therefor	3231	7th Dec. 1866	Robert Smith. John Ramage.
Machinery or apparatus for twisting or doubling yarns or threads of wool or other fibrous substances.	3250	10th Dec. 1866	James Tolson.
Manufacture of fibrous yarns or threads	3277	13th Dec. 1866	William Wood. James William Wood.
Machinery for spinning yarn (*Communicated by John Rich.*)	3329	18th Dec. 1866	Alfred Vincent Newton.
SPRINGS.			
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.
Construction of metallic cases or shells for the reception of spiral springs and elastic substances, for railway carriages and waggons and other vehicles.	229	24th Jan. 1866	James William Evans.
Buffers, draw springs and bearing springs (*Partly communicated by Edward Lindner.*)	294	30th Jan. 1866	Louis Sterne.
Springs for ladies' skirts and similar purposes (*Communicated by Jules Libert.*)	334	2nd Feb. 1866	John Henry Johnson.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*springs.*)	369	7th Feb. 1866	Uriah Scott.
Improvements in carriages and waggons with folding heads or coverings, and in carriage springs.	404	9th Feb. 1866	James Rock the younger.
An improved method in the rolling of coach spring, spindle and sheet steel.	484	14th Feb. 1866	William Unwin.
Apparatus for tempering saws and other articles capable of being tempered between two heated surfaces. (*springs.*)	562	23rd Feb. 1866	James Dodge.
Two wheel vehicles	644	3rd March 1866	John Walter Friend.
Certain improvements in bearing springs for carriages and other vehicles.	725	9th March 1866	Benjamin Hadley.
Construction and arrangement of springs	763	14th March 1866	Julien François Belleville.
Manufacture of springs applicable to railway engines and carriages, buffers and other purposes.	860	23rd March 1866	Stephen Moulton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SPRINGS—*continued.*			
Carts for distributing water, liquid manure and other fluids over roads and lands - - - -	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
A new knitting machine - - - - - (*Communicated by Jonas Hinkley.*)	948	3rd April 1866	Charles Albert Shaw.
Improvements in the hoops of ladies' skirts and in the covering of steel springs for the same and analogous uses.	1015	9th April 1866	Sylvester Judson Sherman.
Certain new and useful improvements in springs which are particularly adapted to use as rail-road car springs, but may be applied to other purposes. (*Communicated by Alexander Watson.*)	1039	12th April 1866	Alexander Horace Beardon.
Improvements in or applicable to carriage, buffer, draw and other springs - - - -	1289	5th May 1866	Harry Statham. Benoni Collins.
Machinery for the manufacture of coiled springs packed with wool or other fibrous materials.	1459	25th May 1866	James William Evans.
Springs for railway and other carriages - -	1670	22nd June 1866	Timothy Whitley.
Improved modes of applying packing of elastic or flexible materials to axle trees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise.	1699	26th June 1866	Charles Peachey Hollis.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets - - - - - -	1700	26th June 1866	William Buckley. Levi Smith.
An improved and simple method for the working of perpendicular sliding sashes, doors and shutters, or any other perpendicular sliding fittings, by the aid of spring rollers, and the construction of the self-securing moveable beads to admit of such sliding sashes, doors and shutters, or other perpendicular sliding fittings, being taken out for the purpose of cleaning or otherwise.	2089	15th Aug. 1866	Henry James Petty. Charles Frederick Sayer.
Construction of springs suitable for railway carriages and for various other uses.	2140	21st Aug. 1866	John Murphy.
An improved machine for washing cloth and clothes.	2888	18th Oct. 1866	James Miller.
Volute springs - - - - - (*Communicated by John Freeland and Daniel Ward.*)	3054	21st Nov. 1866	George Haseltine.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - (*spring.*)	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Improvements in furniture springs and in machinery to be employed in the manufacture of furniture springs.	3129	28th Nov. 1866	Henry Timmins.
An improved machine for pegging boots and shoes - (*spring.*) (*Communicated by Reuben Whitehouse Drew.*)	3237	8th Dec. 1866	George Haseltine.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STABLES, CATTLE STALLS, FEEDING TROUGHS AND RACKS, NOSE BAGS.			
Apparatus for regulating temperature, for recording temperature, and for actuating timekeepers. (*for stables.*)	76	10th Jan. 1866	Robert Shaw.
An improved mechanical valve respirator - - (*adapting cattle stalls.*)	339	3rd Feb. 1866	William Hibbert.
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts. (*for disinfecting stables.*)	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*disinfecting cattle byres.*)	667	5th March 1866	James Gray.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting stables, &c.*)	922	31st March 1866	James Davis.
Troughs for feeding pigs and other animals -	972	5th April 1866	George Rumbelow.
Construction of stables for horses - - -	1040	12th April 1866	John Haworth.
An improved spring suspension for horses' nose-bags.	1818	11th July 1866	François Dégravel.
Material used for the beds of horses and other animals.	2130	20th Aug. 1866	Thomas Henderson.
Apparatus to feed horses - - - - (*Communicated by Annet Amable Faure.*)	2262	3rd Sept. 1866	Henri Adrien Bonneville.
Fastenings or couplings - - - - - (*for stables.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th Nov. 1866	John Henry Johnson.
Sheep and cattle racks - - - -	3306	15th Dec. 1866	Joseph Symm.
STAMPS AND STAMPING; SEALS, MONOGRAMS, LABELS AND TICKETS; DAMPING, CANCELLING AND PROTECTING STAMPS AND LABELS.			
A machine for cutting, stamping and embossing paper, card board, leather, india-rubber and woven fabrics in general. (*Communicated by Jean Carton.*)	351	5th Feb. 1866	Amédée Mahieux.
Stamping or embossing presses used for embossing, coining or stamping of devices of any kind on metal, parchment, paper or fabrics of any kind.	423	10th Feb. 1866	John Pinches.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STAMPS, &c.—*continued.*			
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*monograms.*) (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge
Labels for trucks used for the transport of goods and merchandize on railways.	961	4th April 1866	Richard Sweeting.
Stamping on flatted or unflatted metals - -	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange
Incurvating or rendering concavo-convex metals either in a flatted or unflatted state - -	1140	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Certain new and useful improvements in machinery for printing surfaces or cancelling revenue or other stamps.	1683	23rd June 1866	Thomas Smith Hudson.
Improved apparatus for damping direction and other labels.	2045	8th Aug. 1866	William Hoare.
Certain improvements in stamps for producing impressions, which are also applicable to cylinder printing - - - - - (*Communicated by Jabez Elverson.*)	2063	11th Aug. 1866	James Collins. Andrew Dwight Campbell.
A new or improved method of protecting labels from injury.	2106	16th Aug. 1866	William Colville Gibson.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*monograms, escutcheons, &c.*) (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
Manufacture of dies or moulds used for stamping, pressing or moulding metal, glass or other material capable of being so treated.	2438	22nd Sept. 1866	Daniel Joseph Fleetwood.
An improved machine for printing dates on railway tickets and for other like purposes.	2455	24th Sept. 1866	George Adams.
Instruments for marking or impressing railway tickets and for other like purposes.	2545	3rd Oct. 1866	Russell Mortimer.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*Communicated by Christopher Retallick James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Stamping or printing machines - - -	2717	20th Oct. 1866	Thomas Horby.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STAMPS, &c.—*continued.*			
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes. (*for labels.*)	2937	10th Nov. 1866	Gustave Josse.
Apparatus for marking or impressing railway and other tickets.	3000	15th Nov. 1866	John Kemble.
Manufacture of lettered, numbered and figured tablets, door and name plates, labels and signs, show plates and other similar articles.	3160	1st Dec. 1866	George Mansell.
An improved cap or cover to be applied for securing and labelling bottles.	3230	7th Dec. 1866	John McGlashan.
Improvements in the mode of treating bottle corks, especially for the purpose of obtaining a more distinctive and less easily effaceable mark or brand, and also for rendering the cork less liable to decay and the action of insects. (*stamping.*)	3341	20th Dec. 1866	Walter Gilbey.
STARCH, SIZE, GLUE, GUM, GELATINE.			
Manufacture of rice starch - - - -	88	10th Jan. 1866	Joseph Wace Gray.
Treating certain chemical matters and compounds for producing glazed surfaces.	308	31st Jan. 1866	George Greaves.
Improvements in preparing size or stiffening, and in applying the same to textile materials or fabrics.	386	8th Feb. 1866	Joseph Townsend.
Heating apparatus used for melting glue and for heating wood and irons.	459	13th Feb. 1866	William Cotter.
An improvement in treating bones and in the manufacture of the products thereof. (*obtaining gelatine, glue, size, &c.*)	915	29th March 1866	John Cowdery Martin.
Improved means and apparatus for the treatment of animal fibrous substances and fabrics of mixed vegetable and animal substances, and of utilizing the waste products therefrom. (*using the seeds for making size, starch, &c.*)	1160	25th April 1866	John Watson Burton.
A process of decolorising albumen extracted from the red blood of animals.	1214	30th April 1866	Augustin Bernard.
Dissolving or treating rubber, gutta-percha, copal, and similar gums or resins and their compounds.	1667	22nd June 1866	Edmund Hunt.
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats. (*and gums.*)	2418	20th Sept. 1866	Charles Crump.
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances.	3303	15th Dec. 1866	Joseph Wilson Swan.
Certain improvements in the preparation of size and in apparatus connected therewith.	3311	17th Dec. 1866	Henry Hall.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM AND OTHER BOILERS; CLEANSING AND PREVENTING INCRUSTATION OF BOILERS; WATER-FEEDING APPARATUS FOR BOILERS.			
I.—Constructing Steam and other Boilers; Generating and Superheating Steam; Preventing Boiler Explosions.			
Improvements in the construction of steam-boilers, which improvements are also applicable to the construction of other vessels of a like character	148	16th Jan. 1866	Richard Cherry. Edwin Crossley. William Bower.
Apparatus for discharging the water resulting from condensed steam, from apparatus where steam is employed - - - - -	163	17th Jan. 1866	James Lee Norton. Frederic Ludovicus Herr. William Bünger.
Vertical steam-boilers for marine and other purposes.	166	18th Jan. 1866	Daniel Adamson.
Machinery and apparatus employed in casting metal tubes and other articles. (*for steam-boilers.*)	172	19th Jan. 1866	William Sumner.
Steam-engine boilers - - - - -	177	19th Jan. 1866	Richard Clark.
Steam-boilers - - - - - -	194	20th Jan. 1866	William King Hall.
An improved generator for steam-engines - - (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
Construction of steam-boilers - - -	226	23rd Jan. 1866	James Howard. Edward Tenney Bousfield.
Means of and apparatus for treating mixed fibrous substances in order to obtain improved products therefrom, parts of which means and apparatus are also applicable to various useful purposes. (*applicable to generating steam.*)	265	26th Jan. 1866	Henry Sherwood.
Obtaining motive-power either giving or not giving light. (*to superheat steam.*) (*Communicated by Edouard Patau.*)	291	30th Jan. 1866	John Garrett Tongue.
Steam-boilers or generators - - -	310	31st Jan. 1866	William Woodward. John Woodward.
Apparatus for heating conservatories, apartments or boilers, by means of gas.	346	3rd Feb. 1866	Theophilus Alfred Gilbert Willington.
Apparatus for heating pipes by hot water - -	429	10th Feb. 1866	George William Cumming. John Kemp Edmonds.
An improved mode of and apparatus for generating superheated steam. (*Communicated by Ebenezer Danford.*)	486	15th Feb. 1866	Alfred Vincent Newton.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein.	513	17th Feb. 1866	Joshua Kidd.
Construction of tubular boilers - - - (*Communicated by Eugène Petry-Chaudoir.*)	532	21st Feb. 1866	Henri Adrien Bonneville.
Construction and arrangement of steam-boilers - (*Communicated by Thomas Mondini.*)	533	21st Feb. 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
An improved superheater for a certain class of steam-boilers, known as "flash firers."	661	5th March 1866	James Stocks.
An improved safety valve for steam-boilers -	665	5th March 1866	Henry Hackett.
Construction of portable steam-engines - - (*and boilers.*) (*Communicated by Isidore Nillus, the younger.*)	666	5th March 1866	George Davies.
Improvements in superheating steam and in apparatus connected therewith.	682	6th March 1866	Archibald Campbell Campbell.
Apparatus used in expanding boiler tubes - - (*Communicated by Richard Dudgeon.*)	699	7th March 1866	George Tomlinson Bousfield.
Improvements in generating heat, and in applying it for the production of motive-power and steam, also in apparatus employed therein.	738	10th March 1866	Matthew Piers Watt Boulton.
Improvements relating to the boilers and engines of steam ships.	759	14th March 1866	John Elder.
Steam-boilers and feed-heating and other apparatus connected therewith.	794	17th March 1866	John Shanks.
Means of and apparatus for obtaining motive-power from the compression and expansion of vapors.	819	20th March 1866	John Ramsbottom.
Steam-engines and boilers - - -	861	23rd March 1866	William Louis Winans. Thomas Winans.
An improved mode of treating waste liquors for the dissipating or utilizing of the same - (*obtaining vapour for motive-power.*)	863	23rd March 1866	Charles Edwards Amos. William Anderson.
Improved means or apparatus for generating steam in steam-boilers.	878	24th March 1866	Robert Newton.
Improved cooking apparatus - - - (*boilers, &c.*)	894	27th March 1866	Frederick Pelham Warren.
Construction of coke ovens - - - (*and generating steam.*)	919	29th March 1866	Charles Pardoe.
Engines for obtaining motive-power - -	1047	13th April 1866	Samuel Chatwood. John Sturgeon.
Improvements applicable to steam-boilers -	1059	14th April 1866	John Jordan.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
An improvement in apparatus for heating and evaporating liquids and fluids.	1158	25th April 1866	Arthur Auckland Leopold Pedro Cochrane.
Increasing the expansive power of steam - -	1184	27th April 1866	Joseph Taylor.
Apparatus for the prevention of steam-boiler explosions - - - - - -	1197	27th April 1866	Edwin Bray. John Crosby Hargreaves.
Steam-boilers - - - - - -	1200	28th April 1866	David Thomson.
Certain improvements in steam-engines and boilers.	1212	28th April 1866	John Charles Pearce.
Steam-boilers - - - - - (*Communicated by William Schaubel.*)	1227	1st May 1866	George Davies.
Improvements in the method of heating the boilers of locomotive and other steam-engines, and in the apparatus employed for such purpose. (*Communicated by David Greene Haskins.*)	1240	2nd May 1866	George Davies.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
An improved preparation or composition for removing and preventing incrustation in steam-boilers.	1251	2nd May 1866	George Feasey.
Cupola and other furnaces - - -	1292	5th May 1866	Samuel Chatwood. John Sturgeon.
Steam-boilers - - - - -	1302	7th May 1866	Thomas Green.
Improved apparatus for draining or drying steam previous to its employment for working steam-engines or for other purposes. (*Communicated by August Heinrich Cornelius Bachmann.*)	1308	8th May 1866	William Ireland.
Manufacture of non-conducting substances for impeding the passage of heat. (*coating for boilers*).	1327	9th May 1866	John Allcock Jones.
Improvements in the manufacture of hair felt and in apparatus therefor. (*for covering steam-boilers.*)	1342	10th May 1866	John White.
Construction of steam-boilers - - -	1375	14th May 1866	Thomas Holt.
Steam generators - - - -	1408	18th May 1866	William Alexander Lyttle.
Certain improvements in generating and heating steam, gas and vapours, and in the machinery or apparatus employed therefor.	1410	18th May 1866	Julian Bernard.
Improvements in the mode or method of applying heat in the drying and calendering of yarns, textile fabrics and other materials, and in the heating and evaporating of liquids, and in the apparatus employed therein - - -	1450	23rd May 1866	John Longbottom. James Eastwood.
Steam and other boilers - - - -	1457	24th May 1866	Thomas Green.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same - - - - (*forming steam.*)	1462	25th May 1866	William Gibson. Edward Ellis.
An improved composition for removing incrustations and preventing the formation of the same in steam-boilers. (*Communicated by Jacob James Lavo and Peter Menard Chouteau.*)	1495	29th May 1866	George Haseltine.
Certain improvements in apparatus applicable to steam-boilers or generators.	1535	2nd June 1866	Samuel Turton.
Improvements in steam-boilers, which improvements are also applicable to hot water and other boilers.	1576	8th June 1866	William John Fraser.
Improvements in apparatus for preventing "priming" and for the discharge of condensed steam from steam pipes, and for regulating the pressure of steam in steam pipes.	1591	11th June 1866	James Seward.
Improvements in the method of burning coals (whether large or small coals), coal dust, coke dust, charcoal, wood and other combustible substances, as also hydrocarbons and gases, and in the arrangement of the furnaces applicable thereto.	1594	12th June 1866	Thomas Joseph Leigh.
A new or improved method of treating permanent inflammable gases, whereby greater heat is obtained therefrom. (*for generation of steam.*) (*Communicated by Simon Stevens.*)	1628	15th June 1866	Benjamin Franklin Stevens.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
Apparatus for generating steam or heating liquids	1694	25th June 1866	Edward Field. Francis Wise.
Improved means or apparatus for generating and reserving steam.	1709	27th June 1866	William Fairbank.
The application of certain spirituous compounds for the production of motive-power. (*producing steam.*)	1714	27th June 1866	John Jordan.
Locomotive engines and tenders - - - (*Communicated by Edwin Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes. - - - (*generating steam.*)	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Steam-boilers - - - - - -	1792	6th July 1866	Thomas Lishman.
Construction of steam-boilers - - -	1811	10th July 1866	James Howard. Edward Tenney Bousfield.
A new and improved arrangement of furnace to be applied to steam-boilers, which is also applicable for other purposes - - -	1813	11th July 1866	George William Hawksley. Matthew Wild Joseph Astbury.
Improvements in the means and apparatus employed in the manufacture of taper or conical and other forms of wrought iron and steel tubes, and in forming flanches thereon.	1868	18th July 1866	George Plant.
Rivetting, boring and other apparatus and arrangements to be used in constructing ships, bridges, boilers and other metallic structures.	1891	21st July 1866	Hugh Smith.
Producing and super-heating steam - - (*Communicated by James Farquharson M'Kenzie.*)	1913	23rd July 1866	George Tomlinson Bousfield.
Steam generators - - - - - (*Communicated by Henry Petitpierre.*)	1941	26th July 1866	Henri Adrien Bonneville.
Improved means and appliances for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - (*locomotive tubes.*)	2006	3rd Aug. 1866	William Deakin. John Bagnall Johnson.
An improved mode of fastening boiler tubes - (*Communicated by James Bowden, Horace Theall and William Henry Cobanks.*)	2082	14th Aug. 1866	Alfred Vincent Newton.
Steam generators - - - - - -	2239	30th Aug. 1866	Robert Daglish.
Improved apparatus for boring boiler tube heads, drilling angle holes, or cutting circular grooves in metallic substances. (*Communicated by James Miller.*)	2247	31st Aug. 1866	William Edward Newton.
Construction and working of furnaces for puddling, balling, heating and melting metals, and for economizing the heat of such furnaces. (*combining with steam-boilers.*)	2259	3rd Sept. 1866	David Caddick.
Improvements in steam-boilers and in apparatus connected therewith.	2332	11th Sept. 1866	Thomas Baldwin.
Apparatus applicable to marine steam-boilers - (*Communicated by Jean Baptiste Thierry, jun'.*)	2339	11th Sept. 1866	George Tomlinson Bousfield.
Steam generators or boilers, water heaters and apparatus connected therewith.	2378	15th Sept. 1866	Joseph Twibill.
An improved arrangement of steam-boiler and furnace.	2408	19th Sept. 1866	Thomas Dixon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes. (*superheating steam.*)	2415	20th Sept. 1866	Aristide Balthasard Bérard.
Apparatus for consuming smoke and economising fuel.	2458	25th Sept. 1866	Henry Turner.
Safety valves - - - - - -	2539	3rd Oct. 1866	John Russell Swann.
Boilers and boiler furnaces - - - - -	2546	3rd Oct. 1866	Henry Fisher.
Improvements applicable to boiling, steaming and cooking apparatus.	2560	4th Oct. 1866	George Underwood.
An improved apparatus for preventing explosions in steam-boilers.	2634	11th Oct. 1866	Isaac Mark Evans.
Construction of steam-boilers - - - - (*Communicated by Henry Feyk and George Towle Emery.*)	2673	16th Oct. 1866	Alfred Vincent Newton.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof, and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Improvements in the construction and arrangement of steam-boilers, and in means or apparatus for collecting sediment or deposit therein. (*Communicated by Joseph Augustus Miller.*)	2720	22nd Oct. 1866	John Garrett Tongue.
Construction of steam-boilers - - - - (*Communicated by Robert Bailey.*)	2805	30th Oct. 1866	William Edward Newton.
Improvements in heating, applicable to steam-boilers' furnaces and other heating apparatus.	2848	3rd Nov. 1866	Francis Alton Calvert.
Improvements in furnaces for burning or consuming smoke, more especially applicable to the furnaces of boilers. (*and fixing boilers.*)	2907	8th Nov. 1866	John James Bagshawe.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*making boilers for generating acid vapours.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Steam generators - - - - - -	2989	15th Nov. 1866	William Alexander Lyttle.
A new or improved process or method of coating or covering iron and steel with copper or copper alloys. (*boiler tubes.*) (*Communicated by Mayeul Bernabé.*)	3047	20th Nov. 1866	Clinton Edgcumbe Brooman.
Steam-boilers - - - - - - (*Communicated by Laurent Chevalier.*)	3056	21st Nov. 1866	William Clark.
Improved machinery for manufacturing spikes and rivets. (*or bolts for boiler plates.*) (*Communicated by John Oliver Reilly and Alexander Wiley.*)	3058	21st Nov. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
Improvements in the modes of cutting metal tubes or pipes, and in the machinery or tools employed for these and other analogous purposes. (*for steam-boilers.*) (*Partly communicated by Nicholas Thomas and Thomas Somerville.*)	3105	26th Nov. 1866	William Richard Middlemore Thomson.
Furnaces and steam-boilers - - -	3122	27th Nov. 1866	Thomas Dickins. Harvey Heywood. John Holland.
Improvements in compound steam-engines and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in the method of applying and arranging apparatus for distilling sea water, and also in the mode or method of combining and and using such apparatus for that and other purposes. (*salt-water boilers.*)	3165	1st Dec. 1866	Samuel John Browning.
Improved apparatus for heating and cooling fluids, especially useful in dry destructive or other distillations, evaporation, refrigeration and the generation of steam.	3179	3rd Dec. 1866	John Ambrose Coffey.
Steam-boilers - - - - - -	3272	13th Dec. 1866	Patrick Heyns.
Construction of stoves for cooking or other purposes. (*boiling water.*)	3274	13th Dec. 1866	Celeste Sinibaldi,
Improvements in steam-boilers and in applying heat thereto - - - - - -	3279	13th Dec. 1866	Henry William Ripley. Thomas Barker.
Improvements in the construction of steam and water traps, and in the floats and valves for the same, also to some extent applicable to other fluid regulating vessels, for controlling the flow of the fluids passing through them.	3345	20th Dec. 1866	David Allan Graham.
Steam-boilers - - - - - -	3390	24th Dec. 1866	Richard Lewis.
Apparatus connected with steam-boilers for regulating the evaporating power thereof, and to obtain greater safety in their use - -	3404	28th Dec. 1866	Thomas Walker. Thomas Ferdinand Walker.
Improvements in or applicable to marine, locomotive, stationary and other steam-boilers.	3407	28th Dec. 1866	Edward Storey.
Improvements in cooking apparatus, parts of which improvements are applicable also to other purposes.	3453	31st Dec. 1866	Frederic Pelham Warren.
See also "FURNACES." „ "GAUGES."			
II.—Cleansing and Preventing Incrustation of Boilers; Purifying the Water.			
Construction of tube brushes used in cleaning the tubes of marine, locomotive and all kinds of multitubular boilers.	139	15th Jan. 1866	Cornelius Moriarty.
Vertical steam-boilers for marine and other purposes. (*preventing incrustation.*)	166	18th Jan. 1866	Daniel Adamson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
An improved compound for removing and preventing incrustation in steam-boilers.	228	23rd Jan. 1866	Mark Silvester.
Preparing materials for preventing and removing incrustation in steam-boilers, for lubricating machinery, and for scouring cloth and other substances.	484	15th Feb. 1866	Peter Ward.
Construction of tubular boilers - - - (*Communicated by Eugène Petry-Chaudoir.*)	532	21st Feb. 1866	Henri Adrien Bonneville.
Brushes or cleaners for cleaning gun barrels and other tubular articles. (*tubes of steam-boilers.*)	537	21st Feb. 1866	Henry Bayliss.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*preventing incrustation.*)	667	5th March 1866	James Gray.
Improved apparatus for cleaning the tubes of steam-boilers. (*Communicated by Daniel M'Dowell.*)	681	6th March 1866	Samuel Soutar.
Steam-engines and boilers - - -	861	23rd March 1866	William Louis Winans. Thomas Winans.
Improvements applicable to steam-boilers - - (*preventing deposit.*)	1059	14th April 1866	John Jordan.
An improved composition for preventing incrustation in steam-boilers.	1076	16th April 1866	James Harris.
A new or improved method of cleaning boiler tubes	1511	30th May 1866	The Right Honble. James Earl of Caithness.
Certain improvements in apparatus applicable to steam-boilers or generators. (*preventing incrustation.*)	1535	2nd June 1866	Samuel Turton.
The application of certain spirituous compounds for the production of motive-power. (*avoiding incrustation in boilers.*)	1714	27th June 1866	John Jordan.
Apparatus for preventing incrustation in steam-boilers. (*Communicated by Joseph Toth.*)	1720	27th June 1866	Baldwin Fulford Weatherdon.
An improved method of and apparatus for preventing incrustation in steam-boilers. (*Communicated by Robert Breckenridge Baker and Charles James Adolphus Dick.*)	1924	24th July 1866	Edward Primerose Howard Vaughan.
Gearing or apparatus for driving scrapers employed in cleansing the flues and tubes of boilers and heating apparatus.	2164	25th Aug. 1866	Edward Green.
Steam generators or boilers, water heaters and apparatus connected therewith.	2378	15th Sept. 1866	Joseph Twibill.
Improved apparatus for cleaning the tubes of steam-boilers.	2387	17th Sept. 1866	Daniel M'Dowell.
Improvements in the construction and arrangement of steam-boilers, and in means or apparatus for collecting sediment or deposit therein.. (*Communicated by Joseph Augustus Miller.*)	2720	22nd Oct. 1866	John Garrett Tongue.
Certain improvements in apparatus for economising fuel by retaining and applying heat to the heating of water. (*and cleansing the pipes.*)	3061	23rd Nov. 1866	John Robinson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
An improved mode of and apparatus for cleaning the outer surfaces of steam-boiler tubes. (*Communicated by Edouard Victor Jules Joublin.*)	3259	11th Dec. 1866	William Edward Newton.
Steam-boilers - - - - - -	3390	24th Dec. 1866	Richard Lewis.
XII.—Water-feeding apparatus for Boilers; Heating Feed-water.			
Improved apparatus for feeding steam-boilers - (*Communicated by Joseph Napoleon Bonaparte Bond and William Ritchie.*)	45	5th Jan. 1866	Alfred Vincent Newton.
Means or apparatus for condensing steam and other vapors, and for refrigerating fluids. (*obtaining feed water.*)	115	13th Jan. 1866	Norman Willis Wheeler.
Feed water heaters for locomotives - -	197	22nd Jan. 1866	Samuel Flinton Allen.
An improved generator for steam-engines - (*Communicated by Louis François Désiré Dufour.*)	214	23rd Jan. 1866	William Edward Gedge.
An improved mode of heating water for the supply of boilers and for other purposes.	218	23rd Jan. 1866	Thomas Prideaux.
An improved apparatus for raising or forcing water by the aid of steam and air, for supplying locomotive tenders and for other purposes.	385	8th Feb. 1866	John Bowman Atwater.
Apparatus for heating the feed water for steam-boilers.	503	16th Feb. 1866	James Heywood Whitehead.
Engines and apparatus for obtaining motive-power, and for using the foul air in mines as fuel. (*obtaining feed water.*)	557	23rd Feb. 1866	James Parker.
Improved means or apparatus for drying steam, also for heating the feed water of stationary boilers - - - - - -	650	3rd March 1866	Joseph Pollit. Eustace Wigzell.
Improvements in generating heat, and in applying it for the production of motive-power and steam, also in apparatus employed therein.	738	10th March 1866	Matthew Piers Watt Boulton.
Steam-boilers and feed-heating and other apparatus connected therewith.	794	17th March 1866	John Shanks.
Improvements in or applicable to that apparatus for raising and forcing fluids and feeding steam-boilers, known as Giffard's injector.	1055	13th April 1866	James Gresham.
Apparatus for heating the water supplied to locomotive and other multitubular steam-boilers.	1090	18th April 1866	James Marshall.
An improved apparatus for the distillation of sea water on board ships, and for heating the feed water therefor, parts of which are also applicable to the heating of any portion of the vessel, or for heating conservatories and other buildings.	1134	21st April 1866	John Hays Wilson.
An improved apparatus for supplying water to steam-boilers.	1181	27th April 1866	Thomas Marshall.
Marine steam-engines and surface condensers - (*feed water heater.*)	1433	21st May 1866	Alexander Crichton.
Improved apparatus for supplying steam-boilers with water. (*Communicated by Emmett Quinn.*)	1467	28th May 1866	George Davies.
Certain improvements in apparatus applicable to steam-boilers or generators.	1535	2nd June 1866	Samuel Turton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM BOILERS, &c.—*continued.*			
Improvements in engines for pumping water, applicable to engines for feeding steam-boilers.	1539	2nd June 1866	Andrew Betts Brown.
Valves for regulating feed, suction and other purposes - - - - - - -	1584	9th June 1866	Jenkin Jones Ingram. George Richard Phillips.
Improvements in means or apparatus for heating the feed water of steam-boilers, and for maintaining free circulation between the upper and lower parts of the water in boilers.	1589	11th June 1866	Albert Thornton.
Improved means of and apparatus for supplying water to the tanks of locomotive engines and tenders. (*Communicated by Henry S. Lansdell.*)	1831	12th July 1866	William Reade.
A feed box for the prevention of injury to marine boilers with surface condensing engines.	1890	21st July 1866	Henry Trotman.
Apparatus for regulating the supply of water and other fluids to steam-boilers and other receptacles. (*Communicated by Michel Hervier and Léon Guizot.*)	1955	28th July 1866	Charles Denton Abel.
The Giffard injector - - - - - (*Communicated by William Sellers.*)	1982	1st Aug. 1866	John Robinson.
Improvements in pumps and in adapting them for propelling vessels and for other purposes - (*filling tenders.*)	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes.	2802	30th Oct. 1866	John Varley.
Certain improvements in apparatus for economising fuel by retaining and applying heat to the heating of water. (*supply water.*)	3081	23rd Nov. 1866	John Robinson.
Certain improvements in apparatus for economising fuel by retaining and applying heat to the heating of water in locomotive boilers. (*supply water.*)	3082	23rd Nov. 1866	John Robinson.
Apparatus for producing a draught in furnaces and for purifying the smoke therefrom. (*and heating feed water.*) (*Communicated by Claude Moret and Felix Raux.*)	3371	21st Dec. 1866	William Clark.
Improvements in or applicable to marine, locomotive, stationary and other steam-boilers. (*heating feed water.*)	3407	28th Dec. 1866	Edward Storey.
STEAM-ENGINES (*Stationary, Locomotive and Marine.*)			
Certain movable parts of stationary and marine engines.	44	5th Jan. 1866	William Winter.
Lubricating certain frictional surfaces in steam-engines.	167	18th Jan. 1866	Henry Ashworth.
Vulcanized india-rubber springs for use in railway and other engines, carriages and trucks, and for other purposes.	168	18th Jan. 1866	George Spencer.

Subject-matter of Patent.	Number of Patent.	Date
STEAM-ENGINES—*continued.*		
Means and apparatus for obtaining and applying motive-power. (*Communicated by Alexandre Bobrownicki.*)	181	19th Jan.
Hydraulic machinery - - - - (*applicable to steam-engines.*)	279	29th Jan.
Steam-engines - - - - -	281	29th Jan.
Locomotive engines designed for ascending steep inclines.	284	29th Jan.
Obtaining motive-power either giving or not giving light. (*by steam.*) (*Communicated by Edouard Patau.*)	291	30th Jan.
Motive-power - - - - -	359	6th Feb.
Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (*Communicated by Charles Achille Tranchant.*)	371	7th Feb.
An improved rotary steam-engine - - -	384	8th Feb.
Steam-engines - - - - -	425	10th Feb.
Improvements in and applicable to slide valves, pistons and glands - - - -	479	15th Feb.
Valves for regulating the pressure of steam and other fluids.	504	17th Feb.
Improvements in carburetting low pressure superheated steam, air or coal gas, for lighting and heating purposes, for generating steam or hydrocarbon vapour, and in apparatus employed therein. (*for obtaining motive-power.*)	513	17th Feb.
Valves - - - - - -	523	20th Feb.
Engines and apparatus for obtaining motive-power, and for using the foul air in mines as fuel.	557	23rd Feb.
Steam-engines - - - - -	563	23rd Feb.
Arranging and working steam-engine valves - (*Communicated by Messrs Hughes and Phillips.*)	566	23rd Feb.
An even balanced tubular slide valve for steam or other engines.	607	27th Feb.
The application of a certain material in combination with improved means and appliances, for the manufacture of tubular and hollow cylindrical bodies where great strength and lightness is required - - - - - (*piston rods.*)	647	3rd Marc
Certain improvements in steam cultivators, parts of which improvements are applicable to traction engines and to portable engines used for other purposes. (*Communicated by Robert Creuzbaur.*)	657	3rd Mar
Construction of portable steam-engines - - (*Communicated by Isidore Nillus the younger.*)	666	5th Marc
Rotary steam-engines - - - -	696	7th Marc
Steam-engines - - - - -	708	8th Marc

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM-ENGINES—*continued.*			
Certain improvements in metallic pistons	716	9th March 1866	Thomas Pattison. John Booth.
Improvements in generating heat, and in applying it for the production of motive-power and steam, also in apparatus employed therein.	738	10th March 1866	Matthew Piers Watt Boulton.
Improvements relating to the boilers and engines of steam ships.	759	14th March 1866	John Elder.
An improved rotary steam-engine	778	15th March 1866	William Goodwin.
Means of and apparatus for obtaining motive-power from the compression and expansion of vapors.	819	20th March 1866	John Ramsbottom.
Rotary steam-engines (*Communicated by Andreas Herlöv.*)	839	21st March 1866	William Edward Newton.
Steam-engines and boilers	861	23rd March 1866	William Louis Winans. Thomas Winans.
Slide valves and reversing gear of engines worked by steam, air or gases.	1039	12th April 1866	William Bond.
Engines for obtaining motive-power	1047	13th April 1866	Samuel Chatwood. John Sturgeon.
Distributing valves for steam and other engines	1054	13th April 1866	William Hawdon. William March Hawdon. Henry Heather.
Valves for steam and other fluids	1113	20th April 1866	Charles James Waddell. Hugh Cameron Bell Muir.
Engines worked by steam or other fluid	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Improvements in or applicable to steam-engines	1161	25th April 1866	James Stead Crosland.
Engines for obtaining rotary motion by means of steam, gas or other fluids. (*Communicated by Marie Joseph Denis Farcot and Joseph Perrigault.*)	1206	28th April 1866	Henry Edward Newton.
Certain improvements in steam-engines and boilers	1212	28th April 1866	John Charles Pearce.
Valves used, as in the case of slide valves, for regulating the flow of steam, water and other fluids.	1230	1st May 1866	Joseph Lewis.
Improvements in apparatus applicable as a rotary engine, pump and water meter.	1286	5th May 1866	Augustus Lea Bicknell.
Expansion gear of steam-engines	1293	7th May 1866	John Milner.
Valves for steam and other engines	1304	8th May 1866	Mathew Hutton Atkinson.
Construction of rotary engines to be worked by steam or other power.	1385	15th May 1866	Bryce Grey Nichol.
An improved rotary engine to be used for pumping fluids or gases, or as a motive-power.	1402	17th May 1866	John Beale.
Condensing apparatus (*Communicated by John Turnbull.*)	1406	17th May 1866	Philip Vandirbyl.
Marine steam-engines and surface condensers	1433	21st May 1866	Alexander Crichton.
Rotary steam-engines (*Communicated by Matthias Wharton Baldwin.*)	1441	22nd May 1866	Alfred Vincent Newton.
Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM-ENGINES— *continued.*			
Rotary steam and hydraulic engines	1461	25th May 1866	Wilhelm Heinrich Christian Voss.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same	1462	25th May 1866	William Gibson. Edward Ellis.
Steam-engines	1530	1st June 1866	John Yule.
Locomotive engines for common roads	1534	1st June 1866	William Burrows. Joshua Burrows.
Steam-engines	1601	13th June 1866	George Dominicus Kittoe.
Rotary and reciprocating engines	1647	19th June 1866	Thomas Blatch.
Motive-power apparatus applicable for propelling vessels, for raising water and for other purposes.	1666	22nd June 1866	James Parker.
A new or improved rotary engine	1669	22nd June 1866	George Turton.
An improved construction of rotary engine (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.
An improvement in the pistons of steam-engines, which improvement is also applicable to air pump buckets	1700	26th June 1866	William Buckley. Levi Smith.
Locomotive traction engines	1728	28th June 1866	Daniel Kinnear Clark, C.E.
Locomotive and traction engines	1757	2nd July 1866	Charles James Appleby.
Apparatus for obtaining motive-power by means of steam. (*Communicated by Jules Claude Louis Charnoz.*)	1767	3rd July 1866	William Adolph.
Locomotive engines and tenders (*Communicated by Edward Parke Quadling.*)	1781	5th July 1866	Robert Fowler.
Marine steam-engines	1802	9th July 1866	John Elder.
Arranging and working steam-engine valves (*Communicated by John Morris Phillips and Joseph Hewes.*)	1808	10th July 1866	Stewart Clark.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	1822	11th July 1866	Robert William Fraser.
Steam-engines	1824	11th July 1866	William Naylor.
Machinery or apparatus for facilitating the adjustment and testing the working parts of locomotive engines	1830	12th July 1866	Joseph Ward. Joseph Smales.
Improvements in locomotive engines for enabling them to ascend steep inclines.	1840	13th July 1866	Alexander Woodlands Makinson.
Motive-power engines	1848	14th July 1866	William Justice.
Machinery or apparatus for obtaining and applying motive-power.	1851	14th July 1866	Jesse Ingamells.
Improvements in the method of using and treating steam for purposes of obtaining motive-power, and in apparatus connected therewith.	1909	23rd July 1866	John Ramsbottom.
Steam slide valves for locomotive, marine and general steam-engines, and water valves.	1939	26th July 1866	William Edward Kochs.
Improvements in traction engines, parts of which improvements are also applicable to locomotive engines and wheeled carriages.	1957	28th July 1866	John Phillips-Smith.
Rotary engines (*Communicated by Truman Merriam and James Cushing.*)	1958	28th July 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM-ENGINES—*continued.*			
Construction of rotary steam-engines	2048	9th Aug. 1866	George Bell Harkes.
Steam-engines	2127	18th Aug. 1866	John Varley.
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients.	2174	24th Aug. 1866	John Barraclough Fell.
Certain improvements in metallic pistons	2178	24th Aug. 1866	John Booth.
Improvements in railways and in engines for use thereon.	2189	25th Aug. 1866	William Dunn Gainsford.
Steam-engines (*Communicated by John Franklin Allen.*)	2199	25th Aug. 1866	Charles Talbot Porter.
Apparatus for regulating the flow of steam into steam-engines, by what are commonly called expansion cut off valves.	2207	27th Aug. 1866	James Farmer.
Improvements in valves for pumps, said improvements being also applicable to steam valves	2248	31st Aug. 1866	Henry George Scott. Nathan Hallowell.
An improved rotary steam-engine (*Communicated by Messieurs Emile Sellier and Regis Fidèle Hermant.*)	2270	4th Sept. 1866	George White.
Slide valves for steam-engines (*Communicated by William Bowman Robinson Zoheth Sherman Durfee.*)	2296	7th Sept. 1866	Charles Denton Abel.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines where the steam has access.	2317	10th Sept. 1866	William Frankland.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
Tools or machines for cutting, drilling, slotting, slot drilling, shaping and planing metals and other substances (*for locomotive engines.*)	2364	14th Sept. 1866	Charles Patrick Stewart. Henry Chapman.
Certain improvements in metallic pistons	2366	14th Sept. 1866	Alexander Oldham.
Certain improvements in steam-engines	2405	19th Sept. 1866	Elias Barlow. William Nathan Dack.
Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (*Communicated by John Benjamin Root.*)	2466	25th Sept. 1866	Alfred Vincent Newton.
Apparatus for employing the motive-power of jets of fluid. (*steam.*)	2489	26th Sept. 1866	Matthew Piers Watt Boulton.
Steam-engines	2515	29th Sept. 1866	David Joy.
Improvements in casting iron and steel, and in apparatus employed for this purpose. (*rods of steam-engines.*)	2522	29th Sept. 1866	Joseph Whitworth.
Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery.	2566	5th Oct. 1866	John Cole Chapman.
Construction of certain parts of oscillating steam-engines.	2574	6th Oct. 1866	Simeon Deacon.
Steam-engines (*Communicated by Alexandre Damas Marye.*)	2591	8th Oct. 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM-ENGINES—*continued.*			
Improvements in constructing ships or vessels propelled by twin propellers, and in steam-engines for giving motion to the same.	2608	9th Oct. 1866	William Dudgeon.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
Metallic packings for piston rods and other purposes. (*Communicated by Ralph Ogden.*)	2741	24th Oct. 1866	John Ogden.
Lubricators (*for steam-engine cylinders.*)	2763	26th Oct. 1866	John Storer.
Apparatus for employing the motive-power of jets of fluid. (*jets of steam.*)	2809	30th Oct. 1866	Matthew Piers Watt Boulton.
Valves for engines worked by steam or other fluid	2884	7th Nov. 1866	William Bracewell. William Pickup. Benjamin Lund.
Improvements in slide valves and governors of steam and other engines, and in apparatus connected therewith.	2902	7th Nov. 1866	Edmund Samuel Hindley.
An improved steam-engine (*Communicated by M' Ernesto Ansaldi.*)	2934	10th Nov. 1866	George White.
An improved method of and arrangement of engine for towing or hauling barges and other vessels, which arrangement of engine is also applicable for other tractive purposes. (*Communicated by Urbain André Chauveau and Henri Marie Joseph Le Nepvou de Carfort.*)	2971	13th Nov. 1866	Clinton Edgcumbe Brooman.
Improvements in locomotive engines and their permanent ways, applicable for steep gradients and Alpine locomotion.	2986	14th Nov. 1866	Thomas Page.
Construction of steam-engines	2994	15th Nov. 1866	James Erskine.
An improved steam-engine	3016	17th Nov. 1866	Julien Bolvin.
Slide valves	3017	17th Nov. 1866	Charles William Dixon.
Steam-engines and propellers for propelling vessels	3032	19th Nov. 1866	Cortland Herbert Simpson.
Apparatus for regulating and controlling the pressure and flow of fluids.	3048	20th Nov. 1866	John Robertson.
Machinery or apparatus for obtaining motive-power	3125	27th Nov. 1866	Richard George.
Improvements in and connected with steam-engines	3143	29th Nov. 1866	Joshua Field.
Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids	3206	5th Dec. 1866	James Barwick. Samuel Tindall.
Rotary engines (*Communicated by Auguste Gerin.*)	3207	5th Dec. 1866	William Clark.
An improved construction of steam motor (*Communicated by Samuel Harris.*)	3289	14th Dec. 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEAM-ENGINES—*continued.*			
Locomotive and marine engines - -	3406	28th Dec. 1866	Alexander Woodlands Makinson.
Improvements in the method of effecting the cut off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (*Communicated by George Herman Babcock and Stephen Wilcox Jun'.*)	3452	31st Dec. 1866	George Tomlinson Bousfield.
see also "GAUGES."			
„ „ "GOVERNORS."			
STEERING OR GUIDING SHIPS, CARRIAGES, PLOUGHS, &c.			
Apparatus for manœuvering and steering ships - (*Communicated by George Banks.*)	7	1st Jan. 1866	John Ashdown.
Means of and apparatus for steering, manœuvering and propelling ships or vessels.	270	27th Jan. 1866	James Howden.
Steering apparatus - - - -	321	1st Feb. 1866	Andrew Murray.
Propelling and steering vessels - - -	354	5th Feb. 1866	Daniel Spink.
Machinery for working rudders - - -	405	9th Feb. 1866	George Daniel Davis.
Rudders and steering apparatus - - - (*Communicated by Peter Dinzey.*)	502	16th Feb. 1866	Adolphus Henry Linnington.
Steering apparatus - - - - -	626	1st March 1866	James Skinner.
Steering telegraphs or steering indicators and tell tales - - - - - -	978	5th April 1866	Charles Jullien Viehoff. James Adolphe Matthiessen.
Improvements in apparatus for propelling and steering ships, partly applicable to the transmission of motive-power. (*Communicated by Jean Pierre Victor Le Rouge.*)	1311	8th May 1866	John Henry Johnson.
Apparatus for propelling and steering steam-vessels - - - - -	1415	18th May 1866	Robert Griffiths. Arthur Rigg jun'.
Ships' rudders and parts connected therewith -	1486	28th May 1866	Charles Frederic Henwood
Improvements in rudders and stern posts, and in connecting the same so as to allow of the ready shipping and unshipping of the rudder from the deck.	1496	29th May 1866	Francis Hewitt.
Locomotive traction engines - - -	1726	28th June 1866	Daniel Kinnear Clark C.E.
Improved steering apparatus - - - (*Communicated by Robert Creuzbaur.*)	1783	5th July 1866	Alfred Vincent Newton.
Apparatus for transmitting motion to the rudders of ships and other vessels.	1833	12th July 1866	Daniel Gallafent.
Improvements in pumps and in adapting them for propelling vessels and for other purposes - - (*and steering.*)	2091	15th Aug. 1866	Edwin William De Rusett. Richard Farrell Dale.
Rudders for ships and other water craft - - (*Communicated by William Lyman Wetmore and Nicholas David Le Pelley.*)	2104	16th Aug. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STEERING, &c.—*continued.*			
Improvements in or applicable to locomotive engines and carriages, adapted more particularly for use on railways having steep inclines, but which may be also used upon railways of ordinary gradients. (*arrangement of guiding wheels.*)	2174	24th Aug. 1866	John Barraclough Fell.
Apparatus for propelling and steering vessels - (*Communicated by Joseph Athanase Ganeval.*)	2237	30th Aug. 1866	William Clark.
Improved apparatus for steering steam vessels -	2327	10th Sept. 1866	William Joseph Curtis.
Improved apparatus for steering vessels - - (*Communicated by Robert Creuzbaur.*)	2456	24th Sept. 1866	Alfred Vincent Newton.
Apparatus for steering vessels - - - (*Communicated by Maurice Aron.*)	2521	29th Sept. 1866	William Clark.
Propelling and steering ships and vessels - - (*Communicated by John Stanworth Martin and John Frederick Droop.*)	2724	22nd Oct. 1866	John Henry Johnsen.
Means employed for propelling, steering and manœuvering vessels, ships, boats and other navigable bodies.	3219	6th Dec. 1866	George Henry Phipps.
Improvements in the construction of steam ships, sailing ships, boats and other vessels for sea or inland navigation, the said improvements being for the purpose of facilitating the quick steering or manœuvring of such vessels.	3276	13th Dec. 1866	Johann Heinrich Grell.
Apparatus for propelling vessels - - (*and steering.*)	3295	15th Dec. 1866	Charles Randolph.
Improvements in steering apparatus, referring to a steering telegraph and rudder indicator, and a steam steering engine.	3321	18th Dec. 1866	John M'Farlane Gray.
Improvements in war ships, forts, guns and armour, and in fitting and working them. (*constructing rudders.*)	3357	20th Dec. 1866	Charles Lungley.
A steering indicator or a machine or apparatus for indicating to the eye by day and night the position and movements of the rudders of vessels.	3432	28th Dec. 1866	Nicolai Christian Franzen.
For ships' compasses, *see* "COMPASSES."			
STONE AND SLATE, ARTIFICIAL STONE AND MARBLE; GRINDSTONES AND MILLSTONES.			
Machines for graining in imitation of wood and marble. (*Communicated by Robert Adams.*)	186	20th Jan. 1866	George Tomlinson Bousfield.
Machinery for crushing and pulverizing ores and other hard substances. (*stones.*)	241	24th Jan. 1866	James Jones.
Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics - - (*imitating marble.*)	278	29th Jan. 1866	William Hersee. George Smyth.
Manufacture of building blocks of artificial stone -	558	13th Feb. 1866	Frederick Ransome.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STONE, &c.—*continued.*			
Manufacturing and applying argillaceous, calcareous, siliceous and metal composition cements. (*imitations of stone.*)	580	24th Feb. 1866	William Welch.
An improved apparatus for holding and driving cutting and other tools. (*for cutting stone, marble, &c.*)	604	27th Feb. 1866	Frederick Morton Eden.
Machinery for grinding and equalising the thickness of lithographic stones.	634	1st March 1866	William Conisbee.
Machinery for mining and working coal, minerals, stone and other earthy matters - -	807	19th March 1866	Edward Beacher. John Gillott.
Machinery for breaking stones and crushing ores and other substances.	1028	11th April 1866	James Frost.
Improvements in the treatment of slag or cinder from blast furnaces, copper smelting and other furnaces, and in apparatus employed therein, which improvements are also applicable to certain processes in the manufacture of iron and steel. (*making artificial stone.*)	1041	12th April 1866	John James Bodmer.
Machinery for breaking stones, ores and other hard substances.	1064	14th April 1866	Sylvester Franklin Schoonmaker.
Application of materials to surfaces for ornamental purposes. (*surfaces of artificial stone.*)	1150	23rd April 1866	Henry Davidson Pitmeoll.
Mills for grinding wheat and other grain - -	1238	2nd May 1866	James Morris.
Improved machinery for facing or smoothing the surface of stone.	1730	29th June 1866	Thomas Smith.
Improvements in the preparation of soluble alkaline silicates to render them suitable for being used for preserving stone, wood and other materials, and for manufacturing artificial stone and for other purposes.	1859	16th July 1866	Léon Mignot.
Manufacture of cements, concretes and artificial stone.	1970	31st July 1866	John James Bodmer.
Apparatus for cutting, grinding and finishing marble and other similar materials. (*Communicated by James W. Maloy.*)	2092	15th Aug. 1866	William Brookes.
An improved portable mill, parts of which are applicable to mill stones generally. (*Communicated by François Cailleaux.*)	2142	21st Aug. 1866	William Edward Gedge.
Improvements in the manufacture of cement compositions, and in the method of applying and securing plastic cements to iron and other surfaces. (*imitating stone.*)	2168	23rd Aug. 1866	William Welch.
Machinery and tools for cutting slate, stone, marble and other minerals - - -	2192	25th Aug. 1866	George Hunter. William Fothergill Cooke
Machinery or apparatus for working stone, or cutting and working mouldings thereon.	2238	30th Aug. 1866	Thomas Gall.
An improved pavement for roads, streets and other thoroughfares. (*Communicated by Charles Sebille.*)	2240	30th Aug. 1866	John Henry Johnson.
A new or improved composition to be employed in architectural mouldings, and for other useful and decorative purposes. (*in place of marble, serpentine, &c.*)	2320	10th Sept. 1866	Charles Bathoe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STONE, &c.—*continued.*			
Manufacture of calcareous bricks or artificial stones (*Communicated by Alfred François Osselin.*)	2323	10th Sept. 1866	William Edward Gedge.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics (*or stone, marble, &c.*)	2350	13th Sept. 1866	Edmund Phillips. James Howie.
The manufacture of scouring stones, commonly called soft or sandstones, used for the scouring and cleansing of stone floors, steps or other similar parts of domestic dwellings or other edifices, or similar places.	2464	25th Sept. 1866	James Duckett.
Composition and production of artificial stone, cements and other compositions.	2470	25th Sept. 1866	George Edward Van Derburgh.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*for drilling stone.*) (*Communicated by Christopher Retallic James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
Arrangements of machinery for dressing granite and all other kind of stone.	2705	19th Oct. 1866	Edward Wills Uren.
Improvements in grinding, crushing or reducing dry substances, and in the apparatus or means employed therein or in connection therewith. (*crushing stones.*) (*Communicated by Frederick Hoffmann.*)	2799	30th Oct. 1866	Hermann Wedekind.
An improved process for producing pictures, ornamental designs, letters and other characters or figures, on and in marble and other calcareous stones. (*Communicated by Asa Hill.*)	2900	7th Nov. 1866	George Haseltine.
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes.	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Improved self-acting apparatus for cutting or getting coal, boring rocks or other substances, which apparatus is also applicable to steam hammers, mortising machines and other similar purposes (*surfacing stone.*)	2954	12th Nov. 1866	William Routledge. Frederick Francis Ommanney.
Sculpturing or forming ornamental and other devices on and in marble, stone and other substances.	2960	12th Nov. 1866	Abdiel Hawkins.
Machinery for dressing slates	3268	13th Dec. 1866	Henry Wren. John Hopkinson.
Improvements in apparatus and material for ornamental painting, graining, marbling and such like purposes. (*imitation of marble.*)	3330	18th Dec. 1866	Thomas Titterington.

For preserving stone, *see* "PRESERVING WOOD."
„ breaking stones, *see* "GRINDING MINERALS."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
STRAPS, DRIVING-BANDS AND BELTS.			
An improved means of splicing or joining straps or driving belts for machinery.	249	25th Jan. 1866	George Dyson.
Driving belts or bands - - - - -	583	24th Feb. 1866	Frederick Lamb Hancock. Charles Lamb Hancock.
A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands -	602	27th Feb. 1866	Myer Myers. Maurice Myers. William Hill.
An improved construction of fastening for baling bands. (*Communicated by George Newton Beard.*)	1208	28th April 1866	Eleazar Judson Beard.
Improved machinery for uniting together materials employed in the manufacture of boots and shoes, saddlery, driving-bands and such like articles as require to be strongly united together.	1762	2nd July 1866	Thomas Cook.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material - - - - - (*bands.*)	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
An improved machine or apparatus for manufacturing leather straps, belts or bands for driving machinery and for other purposes. (*Communicated by Charles Jules Camille Bonnot.*)	2336	11th Sept. 1866	William Edward Gedge.
Leather straps or driving bands - - -	2344	12th Sept. 1866	Michael John Haines.
Clips or fastenings for the bands of purses and pocket books, and for other bands, and for other like purposes.	2373	15th Sept. 1866	Thomas Newey.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
An improved mode of and apparatus for folding and shaping belts or bands of india-rubber (or compound consisting partly of india-rubber) and woven fabric.	2555	4th Oct. 1866	George Pomeroy Dodge.
An improved process for the preparation of india-rubber and kindred gums. (*for belting.*)	2707	19th Oct. 1866	Edwin Lindsey Simpson.
Self-acting machinery or apparatus for uniting together two or more strips of leather or other material, to be used as machine belts, straps or bands, or for other similar purposes - -	3099	24th Nov. 1866	Charles Henry Southall. Robert Heap. John Tasker.
Improvements in the manufacture of straps or belts for driving machinery, and in a new or improved construction of joint or coupling for the ends of such and other like belts.	3426	29th Dec. 1866	William Wilby.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SUGAR AND SYRUPS; GLUCOSE.			
Refining sugar - - - - - -	162	17th Jan. 1866	Mark French Anderson.
Improved preparations of the plant known as the coca, to permit its incorporation with confectionery of all kinds, syrups and liqueurs, and its use for dyeing. (*Communicated by Felix Boutellas-Desmoulins.*)	189	20th Jan. 1866	William Edward Gedge.
Manufacture of beet-root sugar - - -	225	23rd Jan. 1866	Gerd Jacob Bensen.
Improvements in the manufacture of materials or compositions for decolorising or purifying saccharine or other liquids, and for making paint, blacking and foundry blackening, and in apparatus therefor.	258	26th Jan. 1866	Jean Marie Armand Montclar.
An improved process for extracting the juice from sugar-cane, beetroot and other plants. (*Communicated by Frederick James Vivian Minchin.*)	594	27th Feb. 1866	William Edward Gedge.
Treating animal charcoal used in refining sugar -	842	21st March 1866	Edwin Demas Elliot.
An improved apparatus for sifting sugar or flour or other meals, or separating the smaller from the grosser particles in sauces and condiments.	909	29th March 1866	Morris Myers.
Treatment of sugar - - - - - (*Communicated by François Joseph Chauvin and Frederic Mathurin Légal the younger.*)	960	4th April 1866	John Henry Johnson.
Treating animal charcoal - - - - -	1005	7th April 1866	George Gordon.
Apparatus for sifting flour and other substances - (*sugar.*) (*Communicated by Joseph Wells.*)	1073	16th April 1866	John Henry Johnson.
Mode of and apparatus for expressing liquids from pulpy and semi-fluid substances. (*from pulp of beetroot.*) (*Communicated by Louis Pierre Robert de Massy.*)	1130	21st April 1866	William Edward Newton.
An improvement in the manufacture of metallic acetates and carbonates, simultaneously with the production of vinegar and glucose.	1332	9th May 1866	Robert Rowland.
Improvements in the manufacture of sugar and in the apparatus employed therein.	1623	14th June 1866	Walter Knaggs.
Treatment of animal charcoal used by sugar refiners or others, in order to its re-use.	1640	18th June 1866	William Barker Patrick.
Improved apparatus for treating corn and other materials. (*or for sugar works.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
An improved implement for beating and cutting meat and other substances. (*chopping sugar.*)	1910	23rd July 1866	Levi Lemon Sovereign.
An improved method of and apparatus for facilitating the moving of moulds and the draining of syrup from sugar solutions and sugar in the said moulds, in the manufacture of sugar.	2255	3rd Sept. 1866	Samuel Vickess.
Improvements in drying solid substances and in the apparatus or means employed therein. (*sugar.*)	2453	24th Sept. 1866	Robert Kunstmann.
Means and apparatus for effecting the revivification of animal charcoal.	2460	25th Sept. 1866	William Cormack.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
SUGAR, &c.—*continued.*			
An improved system or process of treating animal charcoal used in the purification of sugar, and also improved apparatus to be employed in such process.	2571	6th Oct. 1866	George Gordon.
Refining or decolorizing sugar and syrup	2645	12th Oct. 1866	Edward Beanes.
Sugar refining	2773	26th Oct. 1866	John Wagener. George Jordan Firmin.
A new or improved mode of saccharatification of sugary substances. (*Communicated by Dr Frederic Jünemann, Pierre du Rieux and Edouard Roettger.*)	3146	30th Nov. 1866	Edward Thomas Hughes.
An improved machine for cutting sugar cane (*Communicated by Frederick James Vivian Minchin.*)	3187	4th Dec. 1866	Ferdinand Kohn.
An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.	3422	29th Dec. 1866	Joseph Slatter.
SULPHUR.			
Separating sulphur from soda waste	1016	9th April 1866	Panajota Wilhelm Hofmann Ph. D.
Improvements in the process of desulphuration and in the apparatus employed for such process. (*Communicated by Amédée François Rémond.*)	1017	9th April 1866	George Davies.
An improved process and apparatus for obtaining metals and saleable products from ores and minerals, adapted particularly to the reduction of sulphurets (*obtaining sulphur.*)	1493	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Separating sulphur from soda waste (*Communicated by Panajota Wilhelm Hofmann.*)	2593	8th Oct. 1866	George Tomlinson Bousfield.
SURGERY, SURGICAL INSTRUMENTS, SPLINTS AND BANDAGES, TRUSSES FOR HERNIA; ARTIFICIAL LIMBS, INVALID FURNITURE.			
An improved mechanical valve respirator (*and medicated cloths for bandages.*)	339	3rd Feb. 1866	William Hibbert.
Vacuum apparatus employed for the cure or relief of inflammatory diseases.	414	10th Feb. 1866	Victor Theodore Junod.
Trusses	522	20th Feb. 1866	George Hill. David Hill.
Mode of converting the fibrous residues of certain plants into filaments suitable for the manufacture of textile fabrics, paper pulps and other products. (*Communicated by Marie Anne Veronique Cauvique.*)	659	5th March 1866	Marc Antoine François Mennons.

Subject-matter of Patent.	Number of Patent.	Date	Name of Patentee.
SURGERY, &c.—*continued.*			
Improvements in the construction of goggles to be used for the cure of "strabismus" or squint, which said improvements are also applicable to the stages of microscopes.	890	27th March 1866	Salom Henry Salom.
Beds for invalids and other sick and infirm persons (*Communicated by Madame Sophie Dambrine Widow Polydore Massiou.*)	1060	14th April 1866	Henri Adrien Bonneville.
A new system of application of pads of india-rubber or other elastic materials. (*applied to crutches, artificial legs, &c.*) (*Communicated by Major-General Angelini.*)	1295	7th May 1866	Vital de Tivoli.
Abdominal supporters - - - - -	1319	8th May 1866	Joshua Crawford.
A new or improved instrument to be used in cases of difficult parturition.	1763	3rd July 1866	George Robert Sheraton.
A new magnetic compound applicable to the manufacture of articles suitable for curative and other beneficial and useful purposes - - (*belts, bandages, &c.*)	2886	7th Nov. 1866	William Darlow. Philip William Seymour.
A new or improved instrument to be employed in producing local anæsthesia. (*see* "DENTISTRY.")	3011	16th Nov. 1866 - -	Richard Woollatt.
TAR AND RESIN.			
Manufacture of artificial coal tars and their solid derivatives, such as phenical soaps and salts.	383	8th Feb. 1866	Pierre Alexis Francisse Bobœuf.
Treatment of certain products obtained in the refining of petroleum and of other hydro-carbon oils. (*acid and alkaline tar or foots.*)	553	23rd Feb. 1866	John Fordred.
Dissolving or treating rubber, gutta-percha, copal and similar gums or resins and their compounds.	1667	22nd June 1866	Edmund Hunt.
Decolorising the products obtained in the distillation of shale, coal and wood, including tar, for the purposes of dipping, pouring and smearing sheep, and thus preserving the purity of color and the healthy condition of the wool.	1838	13th July 1866	James Law.
Solvents for resins and resinous substances, caoutchouc, gutta-percha, oils and fats.	2418	20th Sept. 1866	Charles Crump.
Improved arrangements and apparatus for removing or transferring tar or similar materials from one place or receptable to another.	3349	20th Dec. 1866	Edward Dorsett.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
TELEGRAPHS (*Electric*); **TELEGRAPHIC PRINTING APPARATUS.**			
Treatment and application of vegetable fibres (*for covering telegraphic cables.*)	14	2nd Jan. 1866	Werner Staufen.
Manufacture of telegraph standards, fencing posts and signal posts.	24	3rd Jan. 1866	George Sinclair Robertson
Manufacture of telegraphic and signal pillars or posts.	89	10th Jan. 1866	William Baines.
Electric telegraph apparatus, parts of the invention being applicable to other purposes	165	18th Jan. 1866	Cornelius Varley. Samuel Alfred Varley.
Improvements in submarine telegraph cables, and in submerging and raising submarine telegraph cables.	195	20th Jan. 1866	Thomas Hutton.
Machinery for making moulds for casting metals (*covers for insulators.*)	196	20th Jan. 1866	William Thomas the younger.
A new or improved vehicle for carrying the electric wires in submarine telegraphs	222	23rd Jan. 1866	François Wibratte.
Electric telegraph apparatus	237	24th Jan. 1866	Samuel Manley Martin. Samuel Alfred Varley. Frederick Henry Varley.
Improvements in galvanic batteries for keeping up constant currents of electricity, for railway train signals and electric telegraphic purposes	338	3rd Feb. 1866	Albert Horwood. Charles Brumfit.
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
An improved construction of submarine telegraphic cable for the transmission of electric despatches	466	14th Feb. 1866	Henry Ernest Baron de Gablenz Junr. Henry Mahler.
Improvements in the construction of electric telegraph conductors, and in the method of preparing and laying the same, also in the machinery or apparatus to be employed therein.	480	15th Feb. 1866	Donald Nicoll.
Improvements in and relating to fence, gate and telegraph posts	514	19th Feb. 1866	Matthew Andrew Muir. James M'Ilwham.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes, and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.
An improved fly for moderating or regulating the movements of wheelwork. (*telegraph printing.*)	870	24th March 1866	Philipp Stieffel.
An improved mode of controlling or governing the speed of machinery, more especially applicable to machines for paying out submarine telegraph cables.	882	24th March 1866	Thomas Silver.
Electric telegraphs	932	31st March 1866	Samuel Manley Martin. Samuel Alfred Varley. Frederick Henry Varley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
TELEGRAPHS, &c.—*continued.*			
Telegraphic signalling apparatus	1050	13th April 1866	Thomas Brittan.
The improvement of the means of and apparatus for laying submarine telegraphic wires, lines, cables or other contrivances of a like sort.	1068	16th April 1866	Reinhold Edward Kaulbach.
Improvements in apparatus for winding in telegraphic cables, applicable also when winding in other ropes or chains.	1218	30th April 1866	Fleeming Jenken.
Insulators for telegraph wires (*Communicated by David Brooks.*)	1226	1st May 1866	George Davies.
Apparatus employed in laying electric telegraph cables.	1456	24th May 1866	Albert Westhead.
An improved mode of connecting metallic wires (*telegraphic.*) (*Communicated by Nathan Bloch.*)	1503	29th May 1866	William Edward Newton.
Telegraphic printing apparatus (*Communicated by Gaetano Bonelli.*)	1504	29th May 1866	Christine Temple Bowdoin.
Improvements in the transmission of electric telegraphic despatches and in the apparatus employed therein. (*Communicated by Jean Joseph Etienne Lenoir.*)	1521	31st May 1866	John Henry Johnson.
Mode of transmitting messages by the electric or magnetic telegraph.	1646	19th June 1866	Francis John Bolton.
Construction of general electric telegraphic machines and the mode of working them	1725	28th June 1866	François Thierry Hubert. Henry David Green Truscott.
Construction of submarine telegraph cables (*Communicated by Pierre François Léon Péréné.*)	1749	2nd July 1866	Henri Adrien Bonneville.
Construction and laying down of subterraneous telegraph wires. (*Communicated by Pierre François Léon Péréné.*)	1751	2nd July 1866	Henri Adrien Bonneville.
Treatment and application of vegetable fibres (*for covering telegraph cables.*)	1761	2nd July 1866	Werner Staufen.
Improvements in the manufacture of telegraph and signal pillars or posts, and in rolling iron for other uses.	1803	9th July 1866	William Baines.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
Apparatus for holding suspended electric telegraph wires.	1843	13th July 1866	Robert Jobson.
Electric telegraph apparatus	1867	17th July 1866	Cornelius Varley. Samuel Alfred Varley.
Apparatus for holding and releasing cords, chains, ropes and bands (*telegraph cables.*)	1979	1st Aug. 1866	Walter Beaumont. William M'Master.
A new and improved method for insulating and protecting electric telegraph wires for submarine, subterranean and other lines, with improvements in the machinery and in the process and material.	1989	2nd Aug. 1866	William Alfred Marshall.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
TELEGRAPHS, &c.— *continued.*			
Improvements in the construction of fire-escapes, such improvements being applicable to the construction of apparatus for analogous purposes. (*for fixing telegraph wires.*)	1990	2nd Aug. 1866	Ephraim Lamb.
An improved telegraphic cable - - - - (*Communicated by Alexander John Baptist de Morat.*)	2052	9th Aug. 1866	William Robert Lake.
Laying and sustaining in position telegraph cables -	2141	21st Aug. 1866	Henry Banks Wright.
Electric telegraph conductors - - - - (*Communicated by John Montgomery Batchelder.*)	2329	10th Sept. 1866	John Henry Johnson.
Means of reproducing signs, characters and other marks, in the transmission of messages and signals by electric telegraph apparatus. (*Communicated by Joseph de Susini, Jean Marie Onésime Tamin and Émile Bondonneau.*)	2513	28th Sept. 1866	William Clark.
Electric telegraphs - - - - - (*Communicated by Joseph de Susini and Jean Marie Onésime Tamin.*)	2514	28th Sept. 1866	William Clark.
An improved composition to be substituted for ordinary paints - - - - - - (*for insulating telegraph wires.*)	2540	3rd Oct. 1866	William Hope. Henry Browning.
Electric telegraph apparatus - - - (*Communicated by Joseph de Susini and Jean Marie Onésime Tamin.*)	2716	20th Oct. 1866	William Clark.
Improvements in galvanic batteries and in apparatus for testing the insulation of telegraphic conductors.	2836	1st Nov. 1866	Owen Rowland.
Construction of electric telegraph cables, lines and transmitting instruments connected therewith.	2870	6th Nov. 1866	Thomas Walker.
Improvements in instruments for transmitting telegrams between remote places, especially adapted for submarine and subterranean lines of communication.	2932	10th Nov. 1866	George Little.
An improved mode of authenticating or confirming telegraphic despatches, and for apparatus to be employed therein. (*Communicated by John Haffenden.*)	2977	14th Nov. 1866	Edward John Payne.
Certain improvements applied to clocks and to the receiving apparatus of telegraphs. (*Communicated by Edouard Néel.*)	3023	17th Nov. 1866	William Edward Gedge.
Electric telegraphs - - - - - -	3038	19th Nov. 1866	Josiah Latimer Clark.
Apparatus for transmitting and recording messages or signals.	3094	24th Nov. 1866	Richard Bolton Jones.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*for covering cables.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.
Improvements in insulating and protecting electric telegraph wires, and in the means or apparatus employed therein.	3192	4th Dec. 1866	William Alfred Marshall.
Electro-magnetic and magneto-electric machines - (*for working telegraphs.*)	3209	6th Dec. 1866	Henry Wilde.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
TELEGRAPHS, &c.—*continued.*			
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*or for covering telegraph cables.*)	3225	7th Dec. 1866	William Guest.
Construction of telegraph standards and insulators	3281	13th Dec. 1866	Charles Coles Adley.
Means and apparatus for generating electricity -	3394	24th Dec. 1866	Cornelius Varley. Samuel Alfred Varley.
TESTING THE STRENGTH AND QUALITY OF MATERIALS.			
Dynamometric apparatus for relieving and indicating the strain on mooring and towing ropes or cables of ships and other vessels, and for other similar purposes.	924	31st March 1866	William Pendry.
THERMOMETERS, BAROMETERS, PYROMETERS, SALINOMETERS, ELECTROMETERS; TESTING THE STRENGTH OF FLUIDS.			
Apparatus for regulating temperature, for recording temperature, and for actuating timekeepers.	76	10th Jan. 1866	Robert Shaw.
Electric telegraph apparatus, parts of the invention being applicable to other purposes - - (*galvano-meters.*)	165	18th Jan. 1866	Cornelius Varley. Samuel Alfred Varley.
An improved construction of spirit meter - - (*see* "METERS.") (*Communicated by Edward Payne.*)	561	23rd Feb. 1866	John Fulleck Hearsey.
An improved method of and instrument for measuring the depth of water and the compression of liquids. (*Communicated by Sidney Edwards Morse and Gilbert Livingston Morse.*)	1404	17th May 1866	William Edward Newton.
Gas pyrometers, which may also be employed as thermometers. (*Communicated by Joseph Jean Marie Durand and Celestin Pichoin.*)	1470	26th May 1866	Baldwin Fulford Weatherdon.
Electric telegraph apparatus - - - (*galvanometers.*)	1867	17th July 1866	Cornelius Varley. Samuel Alfred Varley.
A new or improved apparatus or instrument for facilitating the ascertaining the temperature of hay, corn, haulm or seed ricks, stacks, mows or heaps, also applicable for ventilating the said ricks, stacks, mows or heaps, and for extracting samples from the interior thereof.	2029	7th Aug. 1866	Edwin Lywood.
Thermometers and pyrometers - - - (*Communicated by Charles Leroy and Joseph Jean Marie Durand and Celestin Pichoin.*)	2068	11th Aug. 1866	Baldwin Fulford Weatherdon.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
THERMOMETERS, &c.—*continued.*			
An improved mode of and apparatus for determining the actinic power of light.	2355	13th Sept. 1866	Louis Bing.
Construction and arrangement of chronometers, barometers and thermometers.	2446	22nd Sept. 1866	William Weichert.
An improved manometrical sounding apparatus - (*Communicated by Ernest Dubois.*)	2531	2nd Oct. 1866	Frederick Tolhausen.
An improved construction of salinometer pot - (*Communicated by George Sewell and Francis Walker Bacon.*)	2725	22nd Oct. 1866	Alfred Vincent Newton.
Pneumatic signal apparatus or means for giving alarms in case of fire, or for indicating variations of temperature for other useful purposes.	2818	31st Oct. 1866	John Scott.
Improvements in galvanic batteries, and in apparatus for testing the insulation of telegraphic conductors.	2836	1st Nov. 1866	Owen Rowland.
Apparatus for testing the lubricity of oils and other lubricants - - - - -	2953	12th Nov. 1866	James Ingram. Heinrich Stapfer.
Apparatus for measuring the temperature of currents of air or fluid.	3101	24th Nov. 1866	Charles Wood.
THRASHING, WINNOWING, HULLING, DECORTICATING, DRESSING, CLEANING, DRYING, STORING AND PRESERVING CORN, GRAIN, SEEDS AND RICE.			
Improved machinery for assorting grain and seeds	55	8th Jan. 1866	James Kerridge. William Peverett.
Improvements in drying and cleaning grain, and in apparatus to be used for these purposes.	109	12th Jan. 1866	Robert Twiss Sutton.
Improved machinery for breaking hemp and flax - (*adaptable for thrashing grain.*) (*Communicated by Joseph Holford Siddall.*)	333	2nd Feb. 1866	Alfred Vincent Newton.
Apparatus for operating on straw applied to threshing machines or otherwise - - -	452	13th Feb. 1866	William Brown. Charles Neale May.
Improved apparatus for loading waggons with hay, straw and other like products - - - (*Communicated by William Hervey Elliott.*)	640	2nd March 1866	Alfred Vincent Newton.
Improvements in cleaning cotton seeds from fibrous material, and in preparing such seeds for the process of decortication.	781	15th March 1866	Frederick Herbert Gossage.
Certain improvements in the construction of fans or blowers. (*for cleansing grain and seeds.*) (*Communicated by George Leach.*)	791	17th March 1866	Henry Bernoulli Barlow.
Apparatus for decorticating rice and other grain - (*Communicated by Edmond Théodore Ganneron.*)	917	29th March 1866	Henry Edward Newton.
Improvements in machinery or apparatus for shaking, riddling, raising and delivering straw, hay, corn and other like agricultural produce, and in the mode of driving or transmitting motion thereto, parts of which improvements are applicable to the driving or transmitting of motion to other machinery - - -	1072	16th April 1866	James Hayes, the elder. Josiah Hayes. James Hayes, the younger.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
THRASHING, &c.—*continued.*			
An improved machine or apparatus for rippling or seeding flax. (*Communicated by Baron Woldemar von Loewis.*)	1148	23rd April 1866	Charles Denton Abel.
Improvements in machinery or apparatus for drying and cooling grain, applicable also to the manufacture of malt. (*Communicated by James Foley.*)	1326	9th May 1866	John Henry Johnson.
Improved apparatus for decorticating rice and other grain. (*Communicated by Joseph Perre.*)	1586	11th June 1866	Hector Auguste Dufrené.
Improvements in waggons or carts for carrying hay or other agricultural produce, in order to facilitate the stacking of such produce.	1604	13th June 1866	Frederick Cambridge.
Thrashing machines - - - - -	1609	13th June 1866	Samuel Kilby. George Dixon.
Improved apparatus for treating corn and other materials. (*preserving.*)	1693	25th June 1866	Gaston Charles-Ange Marquis of Auxy.
Screens for screening grain and other substances -	1719	27th June 1866	William Wyatt.
Machinery or apparatus for cleaning and decorticating pulse, grain and seeds. (*Communicated by Eugène Pierre Barrabé.*)	1724	28th June 1866	John Henry Johnson.
Improvements in machinery for hulling and finishing rice, which improvements are also applicable to hulling and polishing other grain. (*Communicated by Stephen Oscar Ryder.*)	1922	24th July 1866	William Edward Newton.
An improved corn rick stand and waterproof cover	1991	2nd Aug. 1866	John Beacham Ham.
A new or improved apparatus or instrument for facilitating the ascertaining of the temperature of hay, corn, haulm or seed ricks, stacks, mows or heaps, also applicable for ventilating the said ricks, stacks, mows or heaps, and for extracting samples from the interior thereof.	2029	7th Aug. 1866	Edwin Lywood.
Machinery or apparatus employed in dressing, screening and separating grain, and for other similar purposes. (*dressing rice.*)	2177	24th Aug. 1866	Josiah Thomas Poyser.
Machinery for hulling and cleaning coffee and other berries or seeds. (*Communicated by William Van Vleek Lidgerwood.*)	2242	30th Aug. 1866	William Edward Newton.
Improvements in connecting parts of machinery and structures liable to impulsive forces. (*steam thrashers.*)	2334	11th Sept. 1866	Frederick Arthur Paget.
Thrashing machines - - - - -	2348	12th Sept. 1866	John Davey.
Machinery or apparatus for drying or otherwise treating grain and other substances.	2376	15th Sept. 1866	William Creasy.
Machinery or apparatus for separating grain from straw. (*Communicated by Pierre Ernest Antoine Revol.*)	2394	18th Sept. 1866	William Edward Gedge.
Improvements in brewing, malting, distilling and apparatus employed therein, parts of which are applicable for drying grain or other goods.	2416	20th Sept. 1866	Andrew Barclay Walker.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
THRASHING, &c.—*continued.*			
Improvements in drying and ventilating corn and other agricultural produce, and in apparatus therefor.	2433	21st Sept. 1866	George Dyson.
An improved mode of and apparatus for drying corn and other agricultural produce, in the straw.	2486	26th Sept. 1866	John Yeldham Betts.
Apparatus for raising and stacking straw and other agricultural produce - - - - -	2505	28th Sept. 1866	Matthew Ridley. William Pawson. Charles Basker.
Cotton seed hullers or decorticating machines -	2519	29th Sept. 1866	Pierre Paul Joseph Martin.
Mills for grinding, crushing, splitting and hulling or shelling grain and other substances.	2643	12th Oct. 1866	John Patterson.
Improvements in the treatment and preservation of grain. pulse, seeds and flour or meal, and in the apparatus or means employed therein. (*Communicated by Wilhelm Ramann.*)	2798	30th Oct. 1866	John Henry Johnson.
Machines for drying wool, corn, grain and other substances - - - - - -	2913	8th Nov. 1866	Alfred Giles. Thomas Sturgeon.
Coffee hullers - - - - - - - (*Communicated by Albert Angell, Henry Truman Bosturck Hayes and Andrew M'Kenney.*)	2928	10th Nov. 1866	Henri Adrien Bonneville.
A new and improved sorter and a drilling machine connected therewith. (*Communicated by Jaques Lhuillier.*)	2930	10th Nov. 1866	Henri Adrien Bonneville.
An improved method of preserving cereals and other alimentary substances, both vegetable and animal.	3014	17th Nov. 1866	Aimé Etienne Blavier.
Preparing cotton seeds for the process of decortication.	3021	17th Nov. 1866	Frederick Herbert Gossage.
Machinery for conveying, distributing, cleaning and conditioning corn and grain, also applicable for other articles in bulk.	3061	21st Nov. 1866	Percy Graham Buchanan Westmacott.
Preserving corn or other grain, beans or seeds - (*Communicated by Nicolas Valentin Haussmann.*)	3062	21st Nov. 1866	John Barker.
Process of cleansing, purifying and bleaching various kinds of grain.	3083	23rd Nov. 1866	Robert Potter M. A.
Improvements in apparatus for elevating straw and other produce, also applicable to other purposes where gearing is required.	3084	23rd Nov. 1866	John Coulson.
Improvements in means or apparatus for drying wheat, barley, rice and other grain, which improvements are also applicable to the drying of seeds, coffee and other matters - -	3377	22nd Dec. 1866	Algernon Sydney Ayre. Horatio Harriman Ayre.
An improved screen or sifter for screening cinders, corn, tea, sugar, gravel, malt and other granular substances.	3422	29th Dec. 1866	Joseph Slatter.
Machinery or apparatus for rippling or seeding flax (*Communicated by Baron Woldemar Von Loewis.*)	3444	31st Dec. 1866	Charles Denton Abel.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
THREADS AND YARNS.			
Certain improvements in the construction of cotton balls. (*see* "WINDING.")	213	23rd Jan. 1866	Nathaniel Jones Amies.
Improvements in machinery for washing yarns, applicable also for washing linen, cotton and other yarns in the hank.	570	23rd Feb. 1866	Colin Mather.
Machinery for finishing sewing thread or yarn -	888	26th March 1866	Samuel Barbour.
The application of metallic substances upon textile materials in the state of thread. (*see* "CEMENTED FABRICS.") (*Communicated by Adolphe Benjamin Albert Francois Joseph Lepoutre-Pollet.*)	893	27th March 1866	William Edward Gedge.
Machinery for dressing and polishing yarn, thread, twine, cords or ropes - - -	936	2nd April 1866	William Hill. Thomas Whitehead.
Improvements in the manufacture of yarns and in the machinery or apparatus employed therefor.	1189	27th April 1866	Peter Sanderson.
Manufacture of yarns or threads and woven fabrics, from wool or wool combined with other materials. (*Communicated by Stanislas Vigoureux.*)	1259	3rd May 1866	George Tomlinson Bousfield.
Machinery for cutting india-rubber - - (*into thread.*)	1431	21st May 1866	John Macmillan Dunlop.
Preparing fibrous materials for spinning and weaving. (*making parti-coloured yarn.*) (*Communicated by Stanislas Vigoureux.*)	1527	31st May 1866	George Tomlinson Bousfield.
Improvements in finishing thread and in the machinery and apparatus employed therefor -	1533	1st June 1866	Hugh Crawford. James Crawford.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing and placing, connecting and fastening together textile and other fabrics or materials, so as to be sewn or stitched or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Finishing yarns and threads used for weaving and sewing purposes.	2668	16th Oct. 1866	James Blain.
Machinery for polishing threads and yarns -	2868	5th Nov. 1866	Peter Kerr.
Improvements in finishing thread and yarns, and in the machinery or apparatus employed therefor	2962	12th Nov. 1866	Hugh Crawford. James Crawford.
Machinery for the manufacture of india-rubber thread.	2966	13th Nov. 1866	Charles Moseley.
Machinery for cutting india-rubber - - (*india-rubber thread.*)	3012	16th Nov. 1866	John Macmillan Dunlop. Frank Crossley.
Improvements in woolen and other yarn or twisted strands, and in the machinery or apparatus employed in treating the same. (*Communicated by Edward Tucker Cooper Lutton.*)	3115	27th Nov. 1866	John Henry Johnson

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
THREADS, &c.—*continued.*			
Improvements in the manufacture of yarns and in the machinery or apparatus employed therefor -	3216	6th Dec. 1866	Peter Sanderson. Robert Sanderson.
Improvements in the manufacture of yarns used for weaving textile fabrics, and in the machinery or apparatus employed therefor - -	3231	7th Dec. 1866	Robert Smith. John Ramage.
Manufacture of fibrous yarns or threads - -	3277	13th Dec. 1866	William Wood. James William Wood.
TOBACCO AND SNUFF; CIGARS, CIGAR-HOLDERS, PIPE AND CIGAR LIGHTERS; SMOKING PIPES; TOBACCO POUCHES.			
Machinery for making cigarettes - -	510	17th Feb. 1866	Manuel José Lopez-y-Münoz.
A new or improved apparatus for the use of smokers, parts of which apparatus are applicable to the securing or holding together of cigarette and other papers, as well as securing or connecting together straps and bands -	602	27th Feb. 1866	Myer Myers. Maurice Myers. William Hill.
An improved instrument for cleaning pipes used in smoking.	943	2nd April 1866	Marie Pierre Ernest Vors.
Fastenings for purses, pocket-books, bags, cigar-cases, boxes and similar receptacles - -	1013	9th April 1866	William Rawlings. Wilhelmus Rest.
An improved machine for cutting tobacco for chewing and smoking. (*Communicated by George Washington Hoglen and Stephen Decator Grafflin.*)	1038	12th April 1866	George Haseltine.
Pipes for smoking tobacco - - - (*Communicated by Jean Hochapfel and George Hochapfel.*)	1088	18th April 1866	George White.
Treating and applying a certain vegetable plant for the purpose of the tobacco plant.	1132	21st April 1866	François César Buisson.
An apparatus to be used for piercing and holding cigars, and as a tobacco stopper, pencil case, whistle, seal, toothpick or watch key.	1166	25th April 1866	Henry Charles Butcher.
Improvements in lighting apparatus applicable to lighting cigars and pipes. (*Communicated by François Dedeyn.*)	1301	7th May 1866	William Clark.
Machinery for cutting or slicing timber, more especially applicable for cutting laths for building purposes, tobacco or any fibrous substance.	1418	19th May 1866	John Brown.
Tobacco pipes - - - - - (*Communicated by Louis Goetsch.*)	1453	24th May 1866	William Snell.
Apparatus for finishing tobacco - - -	1713	27th June 1866	Robert Hardie Clydesdale. James Esson Wilson.
An improved metal spring box or case for fusees, cigars and other purposes.	2359	14th Sept. 1866	Colen Hewer Cheshire.
Fastenings for purses, cigar cases, travelling bags and other similar articles. (*Communicated by Joseph Schoenfeld.*)	2579	6th Oct. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	
TOBACCO, &c.—*continued.*		
Certain improvements in canisters or receptacles for containing tobacco.	2637	12th
Developing invisible photographs by the action of the ammonia vapours evolved from tobacco, and improvements in cigar tubes or holders and tobacco pipes for holding the said photographs.	2641	12th
Fastenings or couplings - - - - - (*for cigar cases.*) (*Communicated by Emile Elie Thiercelin.*)	2921	9th
An improved receptacle for tobacco - -	3229	7th
TOYS.		
An improvement in spring tops - - - (*Communicated by Hippolyte Huriaux and Lucien Faille.*)	119	13th
Toy arms and projectiles - - - -	144	16th
Pyrotechnics - - - - - -	216	23rd
An improved aquatic firework - - -	1141	23rd
Lay figures, dolls and manikins - - -	1579	8th
Amorces or primings for fire-arms, toy-arms or detonating toys.	1896	21st
Fire-arms, toy arms and detonating toys - -	1897	21st
Kites - - - - - - -	2099	15th
An improved toy - - - -	2629	11th
A new or improved percussion spinning top - (*Communicated by Augustin Boulanger.*)	2765	26th
Construction of automaton figures or toys -	2897	7th
An improved toy to be actuated by steam -	2901	7th
Apparatus for applying and regulating motive-power. (*for mechanical toys.*) (*Communicated by Joseph de Susini.*)	3173	3rd
Improved apparatus and automatic figures capable of performing various gymnastic feats -	3278	13th
TURNING; LATHES FOR TURNING.		
Improved selfacting jiggers, lathes and wheels for potters' use and other purposes - -	129	15th
Holding details for lathes, vices and wrenches - (*Communicated by James Taylor.*)	337	3rd

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
TURNING, &c.—*continued.*			
Driving "jiggers," lathes and throwing-wheels used by potters.	547	22nd Feb. 1866	Elias Leak.
Mathematical drawing instruments (*adapted to turning lathes.*)	664	5th March 1866	William Ford Stanley.
An improved bung-turning lathe	1025	10th April 1866	James Kennan.
Means or apparatus employed in drilling and ornamenting metal, wood and other similar substances.	1045	13th April 1866	William John Cunningham.
A new wheel pinion for riggers driving operators. (*for turning.*)	1125	20th April 1866	Frederick Ruppert.
Means or apparatus for holding or setting work to be cut, planed, turned, drilled or otherwise operated upon.	1524	31st May 1866	George Radford Mather.
Machinery for turning, shaping and cutting metal	1677	23rd June 1866	Thomas Dunn.
Chucks for turning lathes and other tools (*Communicated by Isaac Smith and William Harvey Haight.*)	2036	7th Aug. 1866	William Edward Newton.
Machinery for turning or cutting and polishing screw-nuts and other articles.	2392	18th Sept. 1866	John Thompson.
Lathes	2801	13th Oct. 1866	George Dacre.
Machinery for manufacturing screw-nuts (*lathe for facing.*)	2876	6th Nov. 1866	Edward Hammond Bentall.
Improvements in machinery for cutting or dressing stone for building purposes, and for moulding and turning same for architectural purposes	2935	10th Nov. 1866	Henry Hitchins. William Wood.
Construction of lathes	3034	19th Nov. 1866	Thomas Greenwood.
Improvements in the construction and manufacture and in apparatus employed in the manufacture of tool holders and cutters, and in machinery for grinding or sharpening cutters and tools used in lathes, in planing and other machines for cutting and shaping metals and other materials	3247	10th Dec. 1866	William Ford Smith. Arthur Coventry.
Apparatus for the manufacture of crucibles and other hollow articles from plastic materials (*lathe stop or break.*)	3292	15th Dec. 1866	Thomas Vaughan Morgan. Edwin Hyles.
UMBRELLAS, PARASOLS, UMBRELLA FURNITURE; WALKING STICKS.			
Manufacture of umbrellas	179	19th Jan. 1866	Michael Jackson.
An improvement in umbrellas	1245	2nd May 1866	William Ince. William Henry Bedwell.
Construction of umbrellas and parasols	1370	14th May 1866	Robert Fyers.
Tipping walking sticks and the sticks and ribs of sunshades, parasols and umbrellas, with glass.	1961	30th July 1866	John Jackson Wheeler.
Manufacture of umbrellas and parasols	2039	8th Aug. 1866	Henry Holland.
Improvements in hats or coverings for the head, parts of which improvements are applicable to parasols and fans. (*Communicated by William Henry White.*)	2299	7th Sept. 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
UMBRELLAS, &c.—*continued.*			
An improved material or substance to be used instead of whalebone in the manufacture of whips, whip handles, riding and walking sticks, and such like articles.	2371	15th Sept. 1866	John Keyston.
Umbrellas - - - - - -	2411	20th Sept. 1866	Frederick Sutherland.
UPHOLSTERY (*Mattresses, Beds, Cushions, Curtains, Curtain and Stair Rods, Cornice Poles*); **RUGS, MATS AND MATTING.**			
Treatment and application of vegetable fibres - (*stuffing for cushions.*)	14	2nd Jan. 1866	Werner Staufen.
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
The use and application of paper, printed or otherwise ornamented with water colours, for covering floors and other analogous purposes, as a substitute for carpets and oilcloths, and of an improved coating or varnish to be applied to the same to protect its surface from injury and wear. (*Communicated by Anson Henry Platt.*)	114	13th Jan. 1866	William Robert Lake.
Certain improvements in the manufacture of beds or mattresses to be employed on ship board, or in similar articles to be used as supports in water.	120	13th Jan. 1866	Henry Francis Smith.
Mattresses and palliasses and seating for use in nurseries and hospitals and by invalids, and for omnibus or any other seating exposed to wet by weather or otherwise.	145	16th Jan. 1866	Stephen Dummere.
An improved manufacture of studs, buttons, ornamented plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.
A new or improved kind of expanding window-blinds, cornice poles, blind rollers and other window fittings, also picture rods and stair rods.	857	22nd March 1866	Montagu Archdeacon.
Beds for invalids and other sick and infirm persons (*Communicated by Madame Sophie Dambrine Widow Polydore Massion.*)	1060	14th April 1866	Henry Adrien Bonneville.
An improved construction of spring bed or mattress and apparatus connected therewith. (*Communicated by Jean Antoine Alexander Dupuy and Pierre Grivaud.*)	1165	25th April 1866	William Edward Gedge.
Spring mattresses - - - - - (*Communicated by Etienne Arnould.*)	1169	26th April 1866	Henri Adrien Bonneville.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
UPHOLSTERY, &c.—*continued.*			
Hooks or holders whereby to suspend curtains and other articles.	1172	26th April 1866	Henry Gardner.
Manufacture of felt carpets - - -	1276	4th May 1866	August Röders.
A new system of application of pads of india-rubber or other elastic materials. (*as cushions or beds.*) (*Communicated by Major General Angelini.*)	1295	7th May 1866	Vital de Tivoli.
Improved method of fastening covers or cushions to chairs and other similar seats.	1386	16th May 1866	Alexander Cochrane.
Improvements in looms for weaving Dutch carpets by power, and in the manufacture of such fabrics.	1685	25th June 1866	Edward Hemingway.
Treatment and application of vegetable fibres - (*stuffing for cushions.*)	1761	2nd July 1866	Werner Staufen.
Apparatus for lowering and raising window-blinds, curtains, maps and the like - - - -	1944	26th July 1866	John William Hoffman. George Rowe Wilson.
An improved stuffing for mattresses, chair seats and other like purposes. (*Communicated by Almanzor Alden.*)	2118	17th Aug. 1866	John Henry Johnson.
Manufacture of cornices, cornice pole ends, curtain bands and curtain pins.	2162	23rd Aug. 1866	Thomas William Hill Newbold.
The elastic tubular india-rubber air chambered pannels. (*for cushions, pillows, &c.*)	2235	30th Aug. 1866	Adolphus Julian Clairmonte.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
Moveable door screens - - - - (*or curtains.*)	2412	20th Sept. 1866	Charles Henry Chadburn.
Construction of mattresses - - - -	2533	3rd Oct. 1866	John Oetzmann.
Manufacture of elastic mats and coverings for floors	2541	3rd Oct. 1866	Thomas Forster.
Fringes, tassels and such like upholsterers' trimmings.	2715	20th Oct. 1866	George Dixon.
Poles or rods for curtains and hangings - - (*Communicated by Jules Antoine Pelosse.*)	2877	6th Nov. 1866	William Edward Newton.
The improved manufacture of coverlets, rugs, quilts or covers for beds and certain articles of wearing-apparel, and as a stuffing for cushions and pillows.	2885	7th Nov 1866	Edward Huxley.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*suitable for making mats.*) (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*window fittings or hangings.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
UPHOLSTERY, &c.—*continued.*			
Coverings for floors - - - - (*substitute for carpets.*) (*Communicated by James Hawthorne Spencer.*)	3007	16th Nov. 1866	John Henry Johnson.
Improvements in door mats, which improvements are also applicable to coverings for floors of passages, offices and other places.	3053	21st Nov. 1866	John Tasker.
Improvements in furniture springs and in machinery to be employed in the manufacture of furniture springs. (*for mattresses.*)	3129	28th Nov. 1866	Henry Timmens.
An improved manufacture of elastic seat - -	3135	28th Nov. 1866	George Howard.
Improvements in the manufacture of studs or nails for upholstery, harness and other purposes, and in the apparatus employed therein. (*Communicated by Hippolyte Parpaite.*)	3248	10th Dec. 1866	Clinton Edgcumbe Brooman.
VALVES, TAPS, STOP-COCKS, PLUGS; REGULATING THE FLOW AND PRESSURE OF FLUIDS.			
Apparatus for drawing off and measuring liquids -	93	11th Jan. 1866	Joseph Cook Angus. George Stuart.
Cocks, taps and valves - - - -	102	12th Jan. 1866	William John Walsh.
Machinery and apparatus used in the manufacture of steel and iron.	154	17th Jan. 1866	Francis Preston.
Apparatus for discharging the water resulting from condensed steam, from apparatus where steam is employed - - - - -	163	17th Jan. 1866	James Lee Norton. Frederic Ludovicus Henri William Bünger.
Feed water heaters for locomotives - -	197	22nd Jan. 1866	Samuel Finton Allen.
A new or improved force pump or garden engine -	198	22nd Jan. 1866	Charles Wyatt Orford.
An improved siphon for drawing off liquids -	217	23rd Jan. 1866	Richard Henry Bore.
Vessels and apparatus for containing and drawing off wine and other liquids.	315	1st Feb. 1866	Eugene Candler.
Means and apparatus for regulating the supply of steam to stationary, locomotive and marine steam-engines. (*actuating valves.*)	371	7th Feb. 1866	Charles Denton Abel.
Improvements in meters for measuring and registering the flow of liquids, part of which improvements is also applicable to regulating the flow of steam.	375	7th Feb. 1866	Joseph Lewis.
Certain improvements in the manufacture of water, beer and wine taps, applicable for other similar purposes.	462	14th Feb. 1866	Samuel Mason.
Improvements in and applicable to slide valves, pistons and glands - - - - -	479	15th Feb. 1866	Thomas Adams. George John Parson.
Valves for regulating the pressure of steam and other fluids.	504	17th Feb. 1866	John Fletcher.
Certain improvements in the method of and means for communicating with and transmitting power from place to place. (*opening and shutting valves.*)	521	20th Feb. 1866	Alfred Moore.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VALVES, &c.—*continued.*			
Valves	523	20th Feb. 1866	Thomas Williamson. Edwin Patrick Marren.
Stop cocks	536	21st Feb. 1866	Luke Brown. William Wheeldon. George Nicholas William Tuam Thompson.
Arranging and working steam-engine valves (*Communicated by Messrs Hughes and Phillips.*)	566	23rd Feb. 1866	Peter Kerr.
An even balanced tubular slide valve for steam or other engines.	607	27th Feb. 1866	Joseph Trent.
An improved safety valve for steam-boilers	665	5th March 1866	Henry Hackett.
Apparatus employed in producing illuminating gas from inflammable and volatile liquids. (*tap.*)	669	5th March 1866	Thomas Clayton.
Rotary steam-engines	696	7th March 1866	Aaron Charles Baldwin.
Pumps (*Communicated by Asher Burr.*)	719	9th March 1866	Edward Thomas Hughes.
An improved rotary steam-engine	778	15th March 1866	William Goodwin.
Steam pumps (*Communicated by Adam Scott Cameron.*)	853	22d March 1866	William Clark.
Slide valves and reversing gear of engines worked by steam, air or gases.	1038	12th April 1866	William Bond.
Distributing valves for steam and other engines	1054	13th April 1866	William Hawdon. William March Hawdon. Henry Heather.
Improvements in or applicable to that apparatus for raising and forcing fluids and feeding steam-boilers, known as Giffard's injector.	1055	13th April 1866	James Gresham.
Screw valves for water-closets	1062	14th April 1866	George Thomas Blundell.
Looms for weaving	1067	16th April 1866	Charles Richardson.
Cocks or taps for high pressure hot and cold water, and for kitchen ranges.	1084	17th April 1866	John Dickinson the younger.
Valves for steam and other fluids	1113	20th April 1866	Charles James Waddell. Hugh Cameron Bell Muir.
Engines worked by steam or other fluid	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Apparatus for the prevention of steam-boiler explosions	1197	27th April 1866	Edwin Bray. John Crosby Hargreaves.
Valves used, as in the case of slide valves, for regulating the flow of steam, water and other fluids.	1230	1st May 1866	Joseph Lewis.
Dry gas-meters	1239	2nd May 1866	David Cohen.
Improved apparatus for exhausting and compressing air, applicable to the transmission of despatches and other objects through tubes, and to raising water. (*Communicated by Jean Baptiste Java Mignon and Stanislas Henri Rouart.*)	1282	5th May 1866	George Davies.
Expansion gear of steam-engines	1293	7th May 1866	John Milner.
Valves for steam and other engines	1304	8th May 1866	Mathew Hutton Atkinson.
Water pressure regulators (*Communicated by John Bishop.*)	1329	9th May 1866	Joseph Sheldon.

Subject-matter of Patent.	Number of Patent.	
VALVES, &c.—*continued.*		
Method and means of securing and discharging the contents of pipes and vessels.	1330	9th
Certain improvements in the construction of water closets and in the valves connected therewith -	1337	10th
Governors or apparatus for regulating and controlling the pressure and flow of illuminating gas or other gaseous fluids.	1338	10th
Casks and taps for drawing liquids therefrom -	1368	12th
Cocks or taps for the attachment of pipes with soldered or plumber's joints.	1419	19th
Machinery used in raising and forcing water and other fluids - - - - - -	1475	26th
Improved apparatus for supplying steam-boilers with water. (*Communicated by Emmett Quinn.*)	1487	28th
Certain improvements in hydraulic pumps and in valves connected therewith, and also in the method of driving or actuating such pumps -	1516	31st
An improved apparatus to be employed in drawing liquids from casks and other vessels.	1520	31st
Construction of water cocks or hydrants - - (*Communicated by Jean Baptiste Denans.*)	1525	31st
Improvements in water-closets, urinals, lavatories and other receivers, and also in taps for supplying liquids to the same - - - - -	1552	5th
Valves for regulating feed, suction and other purposes - - - - -	1584	9th
Improvements in apparatus for preventing "priming" and for the discharge of condensed steam from steam pipes, and for regulating the pressure of steam in steam pipes.	1591	11th
An improved apparatus for registering the flow of water or other liquids or fluids through pipes or orifices. (*see* "GAUGES.")	1696	26th J
Combining india-rubber or compounds thereof with metallic substances, for the manufacture of valves and other uses.	1740	29th J
Certain improvements in taps and dies for tapping and cutting screws, and machinery to be employed in effecting the same. (*see* "NAILS.")	1765	3rd J
Machinery for making the fittings for gas, steam and water pipes.	1776	4th J
Improvements in the manufacture of water and steam cocks or stop valves, applicable also for other like purposes.	1787	6th J
Arranging and working steam-engine valves - (*Communicated by John Morris Phillips and Joseph Hewes.*)	1808	10th J
Steam-engines - - - - - -	1824	11th J
Grease cups - - - - - - (*Communicated by Gebhard Hagenmeyer.*)	1832	12th J

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VALVES, &c.—*continued.*			
Improvements in pneumatic railways and in carriages used therein.	1844	13th July 1866	Thomas Webster Rammell.
Apparatus for discharging the water resulting from condensed steam, from apparatus where steam is employed - - - - - -	1855	16th July 1866	James Lee Norton. Frederick Ludovicus Henri William Bünger.
Steam slide valves for locomotive, marine and general steam-engines, and water valves.	1939	26th July 1866	William Edward Kochs.
Improvements in hammers and in mechanism used therewith - - - - - -	1986	1st Aug. 1866	Samuel Chatwood. John Sturgeon. Thomas Sturgeon.
Wet gas-meters - - - - - -	2047	9th Aug. 1866	James Turner.
Certain improvements in direct-acting steam pumps	2088	15th Aug. 1866	Robert James Worth.
Steam-engines - - - - - -	2127	18th Aug. 1866	John Varley.
Water-closets, urinals and taps - - -	2183	24th Aug. 1866	Josiah George Jennings.
Steam-engines - - - - - - (*Communicated by John Franklin Allen.*)	2199	25th Aug. 1866	Charles Talbot Porter.
Apparatus for regulating the flow of steam into steam-engines, by what are commonly called expansion cut off valves.	2207	27th Aug. 1866	James Farmer.
Improvements in valves for pumps, said improvements being also applicable to steam valves -	2248	31st Aug. 1866	Henry George Scott. Nathan Hallowell.
Slide valves for steam-engines - - - (*Communicated by William Bowman Robinson and Zoheth Sherman Durfee.*)	2296	7th Sept. 1866	Charles Denton Abel.
Water-power engines - - - - - (*Communicated by William Lonsdale and William Peete.*)	2306	8th Sept. 1866	Edward Thomas Hughes.
Improvements in water-closets and in valves and regulating apparatus for the same and other purposes - - - - - -	2315	8th Sept. 1866	Frederick Warner. William Stewart. George William Barber.
Apparatus for lubricating the valves, pistons, cylinders and all internal parts of steam-engines, where the steam has access.	2317	10th Sept. 1866	William Frankland.
Improvements in steam-boilers and in apparatus connected therewith.	2332	11th Sept. 1866	Thomas Baldwin.
Improvements in the manufacture of steel and in the apparatus employed therefor, parts of which improvements and apparatus are also applicable to the production of gas for heating purposes.	2415	20th Sept. 1866	Aristide Balthazard Bérard.
Apparatus for drawing and preventing waste of water from service pipes or cisterns.	2457	25th Sept. 1866	James Chandler.
Improvements in steam-engines, partly applicable to pumps and other apparatus in which pistons or plungers are used. (*Communicated by John Benjamin Root.*)	2466	25th Sept. 1866	Alfred Vincent Newton.
Cornets and other similar musical instruments - (*Communicated by the Schreiber Cornet Manufacturing Company (Incorporated).*)	2468	25th Sept. 1866	William Edward Newton.
Steam pumps - - - - - - (*Communicated by Oscar Theodore Earle.*)	2469	25th Sept. 1866	William Robert Lake.
Taps or cocks for water and other fluids - - (*Communicated by William Moodie.*)	2485	26th Sept. 1866	John Henry Johnson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VALVES, &c.—*continued.*			
Improvements in the collection and delivery of letters, parcels and other freight, and in apparatus for the same. (*Communicated by Alfred Ely Beach.*)	2491	26th Sept. 1866	William Clark.
Steam-engines - - - - - -	2515	29th Sept. 1866	David Joy.
An improvement in water-closet cisterns and soil traps.	2532	3rd Oct. 1866	James Cavanah.
Safety valves - - - - - -	2539	3rd Oct. 1866	John Russell Swann.
Construction of certain parts of oscillating steam-engines.	2574	6th Oct. 1866	Simeon Deacon.
Improvements in the construction of water-meters, which improvements are also applicable to the measuring of liquids generally.	2581	8th Oct. 1866	Abraham Ripley.
An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (*Communicated by Thomas Marsh.*)	2636	15th Oct. 1866	William Robert Lake.
Taps or cocks for regulating the flow of fluids -	2672	16th Oct. 1866	John Smith. James John Rowe.
Improvements in stamps, hammers and apparatus connected therewith, actuated by steam, compressed air or other aëriform fluid, the said improvements being applicable to various purposes where percussive force is employed. (*Communicated by Christopher Retallic James and Nathan Woodhull Condict, jun'.*)	2677	17th Oct. 1866	John Garrett Tongue.
An improved self-acting lubricator for the cylinders and slide boxes of locomotives and other steam-engines.	2680	17th Oct. 1866	Heinrich Kessler.
Packing for piston, valve, pump or other such rods or spindles.	2684	17th Oct. 1866	John Coates.
Improvements in means for preventing, indicating and correcting an undue degree of superheating of steam in steam-boilers, and for promoting an equality of temperature in the parts, for the more economical working thereof, and for the prevention of explosions. (*Communicated by Norman Wiard.*)	2687	17th Oct. 1866	George Haseltine.
Improvements in hydraulic presses and apparatus connected therewith for bending metals, part of which is applicable for other purposes.	2792	29th Oct. 1866	Ralph Hart Tweddell.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes.	2802	30th Oct. 1866	John Varley.
Pump valves, stop and let-off cocks or valves, especially adapted for hydraulic presses and high-water pressure. (*Communicated by George Brunton.*)	2883	6th Nov. 1866	Charles Jame Robinson.
Valves for engines worked by steam or other fluid -	2884	7th Nov. 1866	William Bracewell. William Pickup. Benjamin Lund.
Improvements in slide valves and governors of steam and other engines, and in apparatus connected therewith.	2902	7th Nov. 1866	Edmund Samuel Hindley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VALVES, &c.—*continued.*			
Machinery and cutters for making bungs and taps for barrels and other utensils. (*see* "CASKS.")	2906	8th Nov. 1866	John Kay Heywood.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*enamelling or glazing taps and valves.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
An improved steam-engine - - -	3016	17th Nov. 1866	Julien Bolvin.
Slide valves - - - - - -	3017	17th Nov. 1866	Charles William Dixon.
Apparatus for regulating and controlling the pressure and flow of fluids.	3048	20th Nov. 1866	John Robertson.
A new or improved artificial incubator - - (*safety valve.*)	3057	21st Nov. 1866	John Brindley.
Machinery for drilling rocks - - - (*Communicated by Charles Burleigh.*)	3065	22nd Nov. 1866	George Haseltine.
An improved apparatus for tapping beer casks and other like vessels containing liquids under pressure. (*Communicated by Thomas Marsh, Stephen Perry and John Balckom.*)	3073	22nd Nov. 1866	William Robert Lake.
An improved railway break, a portion of the apparatus of which can also be employed as a means of communication between the guard and driver of a railway train - - - (*valves.*)	3077	23rd Nov. 1866	Johnson Kitchen. William Kitchen. Samuel Samuels.
Syphons for drawing off beer, wine and other liquids from casks and other vessels.	3140	29th Nov. 1866	Thomas William Plum.
Improvements in compound steam-engines, and in the construction and arrangement of steam generating furnaces.	3158	1st Dec. 1866	John Ramsbottom.
Improvements in packing for the piston rods of steam-engines and of pumps for raising or forcing hot fluids, acids and other corrosive matters, which improvements are also applicable to the packing of the stuffing boxes or glands of the spindles or axes of cocks or valves used for the passage of steam, hot fluids or acids -	3206	5th Dec. 1866	James Barwick. Samuel Tindall.
Pumps - - - - - - -	3242	8th Dec. 1866	William Warren.
Taps or cocks for drawing off liquids - - -	3275	13th Dec. 1866	James Talbot Kent.
Improvements in the construction of steam and water traps, and in the floats and valves for the same, also to some extent applicable to other fluid regulating vessels, for controlling the flow of the fluids passing through them.	3345	20th Dec. 1866	David Allen Graham.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
Screw valves - - - - - - (*Communicated by John Wilcox.*)	3372	21st Dec. 1866	William Clark.
Improvements in cleansing and purifying casks and other vessels, and in machinery or apparatus employed therein. (*valve or cock.*)	3391	24th Dec. 1866	Edwin Allen.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VALVES, &c.—*continued.*			
Machinery for applying hydraulic power to mining and other purposes (*valvular arrangement.*)	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
Valves (*Communicated by Samuel Joseph Peet.*)	3405	28th Dec. 1866	William Clark.
Cocks for stopping and regulating the flow of steam, water and other fluids	3409	28th Dec. 1866	William Henry Cutler. Thomas Brown.
Cocks or valves	3424	29th Dec. 1866	Charles Harrison.
Apparatus for taking off liquids from casks and other vessels, and similar purposes	3440	31st Dec. 1866	Thomas William Plum.
Improvements in the method of effecting the cut-off in steam-engines, and also in the regulator for controlling the speed of steam-engines. (*Communicated by George Herman Babcock and Stephen Wilcox, Jun'.*)	3452	31st Dec. 1866	George Tomlinson Bousfield.
VENTILATION; SUPPLYING AND PURIFYING AIR FOR BUILDINGS, MINES, SHIPS, CARRIAGES, &c.			
Ventilators and mirrors for hats and other coverings for the head.	2	1st Jan. 1866	Joseph Boonham Croxall.
Combination of chemical matters and mechanical apparatus applied therewith, for the prevention or cure of contagious and other diseases to which human beings and animals are subject. (*filtering and purifying polluted air.*)	169	18th Jan. 1866	William Hibbert.
A new or improved instrument or apparatus for giving motion to hand and other fans.	174	19th Jan. 1866	Alfred Bennett.
Blowing or blast engines (*for ventilating mines.*)	363	6th Feb. 1866	Robert Gatley.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid, for the cure of disease among cattle and for other purposes. (*for purifying hospitals, rooms, &c.*)	642	3rd March 1866	Victor Larnaudès.
Cooling bacon-curing rooms or chambers	737	10th March 1866	Robert Andrew Boyd.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*purifying air.*)	921	31st March 1866	James Davis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VENTILATION, &c.—*continued.*			
Construction and arrangement of apparatus and material for effecting the deodorizing of noxious gases arising from sewers and drains, and for the more effectual ventilation of such sewers and drains.	941	2nd April 1866	Edward Brooke the younger.
Means or apparatus for effecting the ventilation of rooms and other places.	1182	27th April 1866	Edward Holden.
Ventilators for windows and other like openings -	1190	27th April 1866	David Blair White.
Construction of furnaces or fireplaces for economizing the fuel employed for warming, heating and ventilating buildings.	1252	2nd May 1866	David Urquhart.
Mode of and means for promoting ventilation - (*Communicated by Henry Albert Gouge.*)	1384	15th May 1866	George Haseltine.
Improvements in greenhouses and specially relating to the fixings, fittings, ventilation and shading of the same.	1399	17th May 1866	Thomas Hungate Preston Dennis.
An apparatus and process for removing dust and gases from air, which they call a draft and spray wheel - - - - - - -	1492	29th May 1866	James Davenport Whelpley. Jacob Jones Storer.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes - - - (*ventilating ships, tunnels, &c.*)	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
Apparatus for raising aëriform and other fluids - (*Communicated by Jeremiah William Foard.*)	1997	2nd Aug. 1866	George Campbell.
A new or improved apparatus or instrument for facilitating the ascertaining the temperature of hay, corn, haulm or seed ricks, stacks, mows or heaps, also applicable for ventilating the said ricks, stacks, mows or heaps, and for extracting samples from the interior thereof.	2029	7th Aug. 1866	Edwin Lywood.
An improved method of or apparatus for ventilating dwelling houses or other buildings.	2206	27th Aug. 1866	The Reverend Thomas Davis.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, timepieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable.	2353	13th Sept. 1866	Fredrich Gustav Adolph Horstmann.
Improvements in brewing, malting, distilling and apparatus employed therein, parts of which are applicable for drying grain or other goods. (*or ventilating rooms.*)	2416	20th Sept. 1866	Andrew Barclay Walker.
Improvements in drying and ventilating corn and other agricultural produce, and in apparatus therefor.	2433	21st Sept. 1866	George Dyson.
Construction of stoves or other heating apparatus for warming and ventilating public and private buildings, baths, hothouses and drying houses -	2448	24th Sept. 1866	Thomas Whitaker. Joseph Constantine.
Building ships and vessels of war - -	2676	16th Oct. 1866	Robert Napier.
Improvements in furnaces and fire-places, and in utilizing the waste heat of the said furnaces and fire-places, and in utilizing and obtaining motive-power from the air supplied to furnaces and fire-places. (*using heated air for ventilation.*)	2744	24th Oct. 1866	Joseph Watts.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VENTILATION, &c.— *continued.*			
Certain improvements in the ventilation of hats or other coverings for the head.	2787	29th Oct. 1866	James Gee.
Reflectors and ventilators in connection with gas and other lights.	2841	2nd Nov. 1866	George Watson.
An improved ventilator - - - -	2915	9th Nov. 1866	John Thomas Kershaw.
An improved apparatus for pumping or ventilating (*Communicated by Paschal Joseph Hognoul.*)	2927	10th Nov. 1866	Henri Adrien Bonneville.
A new or improved artificial incubator - - (*mercurial ventilator.*)	3057	21st Nov. 1866	John Brindley.
Machinery or apparatus for exhausting and forcing air and gases, and for propelling vessels. (*ventilating mines.*)	3139	29th Nov. 1866	Edward Hughes.
Improvements in war ships, forts, guns and armour, and in fitting and working them.	3357	20th Dec. 1866	Charles Lungley.
Improved means of and apparatus for obtaining motive-power applicable for driving machinery and for ventilating mines, buildings, ships and other spaces.	3373	22nd Dec. 1866	Joseph Sloper.
VICES, WRENCHES, DRILL-BRACES, SCREW-STOCKS, SCREW-KEYS OR SPANNERS, CRAMPS.			
An improved wrench and cutter - - -	68	9th Jan. 1866	William Dakin Grimshaw.
Holding details for lathes, vices and wrenches - (*Communicated by James Taylor.*)	337	3rd Feb. 1866	William Mackintosh.
A new or improved adjustable lever spanner or screw wrench.	391	8th Feb. 1866	John Roe.
Vices - - - - - - (*Communicated by Amos Hale Brainard.*)	457	13th Feb. 1866	William Robert Lake.
Construction of vices - - - -	649	3rd March 1866	John Spear.
Screw keys or spanners - - - -	697	7th March 1866	Henry Chandler.
Improvements in drill and other braces, which improvements are also applicable to drilling machines and other apparatus for boring holes.	764	14th March 1866	John Varley.
An improved ratchet-brace, the improvements contained therein being applicable also to lifting-jacks.	817	20th March 1866	William Dicks.
Improvements in vices and in the mode of constructing the same - - - -	836	21st March 1866	Charles Hodgson Parker. Henry Rossell.
Cramps for the use of joiners and others - -	918	29th March 1866	John Frederik Christian Carle.
Ratchet braces and levers - - - -	1196	27th April 1866	Thomas Aldridge Weston.
Certain improvements in the manufacture of "keys," "spanners," "wrenches," "cotters," "nuts" and other articles, and in the apparatus employed therefor - - - -	1515	31st May 1866	Edward Taylor Bellhouse. William John Dorning.
An improved screw stock - - -	2079	14th Aug. 1866	Richard Bagley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
VICES, &c.—*continued.*			
Screw stocks and tube cutters - - -	2840	2nd Nov. 1866	Thomas Chatwin.
Friction breaks and apparatus for giving motion to machinery. (*working drilling braces.*)	2881	6th Nov. 1866	Robert David Napier.
Bench vices - - - - - - (*Communicated by The "New England Vice Company."*)	3174	3rd Dec. 1866	Benjamin Joseph Barnard Mills.
WASHING, CLEANSING AND WRINGING FABRICS, YARNS AND MATERIALS.			
Machines for washing, scouring and starching -	63	9th Jan. 1866	Thomas Bradford.
Apparatus for washing or scouring and wringing textile fabrics and threads. (*Communicated by Jules Degrelle.*)	64	9th Jan. 1866	Richard Archibald Brooman.
A new or improved detergent to be used in the washing or cleansing of wool. (*Communicated by Charles Dyonise Reinfeld.*)	65	9th Jan. 1866	John Henry Johnson.
A new method of and apparatus for washing straw and other plaits and other substances, and for domestic washing purposes - - - -	143	16th Jan. 1866	John Samwells. Samuel Nye.
Machinery or apparatus for washing, wringing and mangling textile and felted fabrics of all descriptions, also applicable to the washing of ores, gold and silver dust and other metals, flocks, hair, tow and other similar materials.	280	29th Jan. 1866	Benjamin Farmer.
Preparing materials for preventing and removing incrustation in steam-boilers, for lubricating machinery, and for scouring cloth and other substances.	484	15th Feb. 1866	Peter Ward.
Improvements in machinery for washing yarns, applicable also for washing linen, cotton and other yarns in the hank.	570	23rd Feb. 1866	Colin Mather.
Machines for washing wool and other fibrous materials.	577	24th Feb. 1866	John Petrie, jun^{r}.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*for washing waste.*)	667	5th March 1866	James Gray.
Improvements in apparatus for reburning and in apparatus for washing animal charcoal or charcoal substitutes.	683	6th March 1866	John Norman.
An improved washing machine - - -	713	9th March 1866	William Henry Fletcher.
Apparatus for scouring, washing, bleaching, dyeing and drying fibrous materials in the raw and manufactured state - - - -	824	20th March 1866	Thomas Nesham Kirkham. Vernon Francis Enson. Hiram Brook.
Machinery for washing and drying wool and other fibrous materials - - - -	984	5th April 1866	John McNaught. William McNaught junior.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WASHING, &c.—*continued.*			
Means or apparatus used in washing or scouring wool and other fibres	1032	11th April 1866	James Crabtree. Joseph Crabtree. Jonas Crabtree.
Machinery for washing wool, hair and other fibre	1138	21st April 1866	George Edmund Donisthorpe.
Machinery or apparatus for washing wool (*Communicated by Julien Désiré Houget and Charles Teston.*)	1288	5th May 1866	John Henry Johnson.
Machinery or apparatus for soaping, washing, fulling, milling, wringing, mangling and ironing clothes and fabrics.	1423	19th May 1866	Nicholas Walton.
Washing machines	1731	29th June 1866	Lawrence Sefton Pilkington.
Apparatus for washing, wringing and mangling	1887	20th July 1866	William Burgess.
Machinery for washing and cleansing wool and other fibrous materials.	2352	13th Sept. 1866	James Lee Norton.
An improved washing machine	2506	28th Sept. 1866	Joseph Broughton. James Broughton.
Machinery for washing wool, hair and other fibre	2557	4th Oct. 1866	George Edmund Donisthorpe.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics	2603	9th Oct. 1866	James Conlong.
Sulphuring yarns and fabrics	2653	13th Oct. 1866	John Dale. John Gallemore Dale.
An improved machine for washing cloth and clothes.	2688	18th Oct. 1866	James Miller.
Improvements in the method and means of cleansing textile and other fabrics and materials, also in the method and means of cleansing and preparing textile and other fabrics and materials to be dyed or printed and dyed.	2967	13th Nov. 1866	William Stevenson Macdonald.
Machinery for wringing yarns	2995	15th Nov. 1866	John Nichols.
A new or improved detergent material applicable to the cleansing of wool and other fibrous substances, and to all purposes where coarse soap is used	3093	24th Nov. 1866	James Mitchell. William Cumming Laird.
Apparatus for filtering or straining liquids and for washing and wringing cloth, rags and similar textile and fibrous substances.	3380	22nd Dec. 1866	Charles James Wahab.

For washing ores, *see* "METALS."
„ washing bottles, *see* "BOTTLES."
„ washing casks, *see* "CASKS."
„ washing coals, *see* "FUEL."
„ washing potatoes, *see* "PRESERVING FOOD."
„ washing corn, *see* "THRASHING."
„ washing clay, *see* "BRICKS."

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATER-CLOSETS, URINALS AND COMMODES.			
Improvements applicable to water-closets and commode pans. (*Communicated by Ernest Mangeon.*)	135	15th Jan. 1866	Henry Edward Newton.
Water-closets - - - - - - -	199	22nd Jan. 1866	John Broadfoot.
Privies and commodes - - - - -	412	9th Feb. 1866	Charles Emile Giajola.
A new or improved chemical mixture to be used as a disinfecting and preserving fluid, for the cure of disease among cattle and for other purposes - (*for purifying cesspools, urinals, &c.*)	642	3rd March 1866	Victor Larnaudès.
Improved preparations for acting upon sea water or upon hard or impure water, in order to render such water more suitable for use in boilers and otherwise. (*cleansing urinals and closets.*)	667	5th March 1866	James Gray.
A pneumatic method for the inoffensive removal of all fluids, solids and gases, from waterclosets or privies and their conduits, and of storing said materials so that they may be applied in their natural unchanged form to agriculture and other branches of industry.	898	27th March 1866	Charles Thieme Liernur.
An improved method of preventing the putrefactive decomposition of vegetable and animal substances, and utilizing the same for agricultural purposes. (*applied to closets, urinals, &c.*)	921	31st March 1866	James Davis.
Improvements in obtaining caustic alkalies to be used as disinfectants, deoxidizers and decarbonizers, and the means by which the same are to be applied, as also for applying the gases liberated in the process to the conversion of iron into steel, and for the manufacture of manures. (*disinfecting closets, &c.*)	922	31st March 1866	James Davis.
Screw valves for water-closets - - -	1062	14th April 1866	George Thomas Blundell.
Certain improvements in the construction of water-closets and in the valves connected therewith -	1337	10th May 1866	William Hackett. William Marsden.
Construction of water-closets - - -	1363	12th May 1866	Thomas Jackson Chapman. Thomas Rose.
Improvements in water-closets, urinals, lavatories and other receivers, and also in taps for supplying liquids to the same - - - -	1552	5th June 1866	Desiré Alfred Dumuis. Elmir Jean François Flicoteaux. Edward William Niblett. Manuel Leopold Jonas Lavater.
Water-closets, urinals and taps - - -	2183	24th Aug. 1866	Josiah George Jennings.
Improvements in water-closets and in valves and regulating apparatus for the same and other purposes - - - - - -	2315	8th Sept. 1866	Frederick Warner. William Stewart. George William Barber.
Apparatus for sanitary purposes - - - (*privies, disinfecting privies.*)	2346	12th Sept. 1866	Thomas Wheelhouse.
Apparatus for drawing and preventing waste of water from service pipes or cisterns. (*or for waterclosets.*)	2457	25th Sept. 1866	James Chandler.
Water-closets, ash-pits, cesspools and similar places	2493	27th Sept. 1866	Thomas Lythgoe.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATER-CLOSETS, &c.—*continued.*			
An improvement in water-closet cisterns and soil traps.	2532	3rd Oct. 1866	James Cavanah.
Apparatus for receiving, drying and deodorizing human excrement.	2750	24th Oct. 1866	Francis Taylor.
Apparatus for supplying or feeding water to steam-boilers, which apparatus measures and regulates the water supplied, and is also applicable for other purposes. (*supplying waterclosets.*)	2802	30th Oct. 1866	John Varley.
Improvements in the construction of privies, dust-holes, commodes, water-closets, ash-pits and tank covers, and for other similar purposes.	2920	9th Nov. 1866	Solomon William Woodroffe.
Improvements in the construction of dry closets, and in apparatus for preparing manure.	2988	14th Nov. 1866	James Conyers Morrell.
Arrangements and apparatus for measuring and controlling the supply of water for closets and general uses, and for the deodorisation, removal and utilisation of excrementary matters.	3296	15th Dec. 1866	Thomas Hoey.
WATERING; SUPPLYING AND DISTRIBUTING WATER; FOUNTAINS AND WELLS.			
A new or improved force pump or garden engine -	198	22nd Jan. 1866	Charles Wyatt Orford.
Machinery for cutting, excavating, sinking, dredging and cleaning water-courses, basins, channels, foundations and roadways, such improvements being also applicable to other similar purposes. (*cutting drains for irrigation.*)	286	29th Jan. 1866	James Robertson.
An improved method of applying to land liquid sewage, and also of applying to land water, pure or mixed with other matter.	431	12th Feb. 1866	James Pilbrow.
Certain improvements in the method of and means for communicating with and transmitting power from place to place. (*turning on water.*)	521	20th Feb. 1866	Alfred Moore.
Fountains - - - - - -	544	21st Feb. 1866	William Donald Napier, M.R.C.S.
An improvement in portable fountains - -	678	6th March 1866	Eugene Rimmel.
Apparatus for distributing water and liquid manure	710	8th March 1866	William Russ. Thomas William Wedlake.
Arranging conduits or channels for the reception of gas, water and other mains, tubes or pipes and telegraphic wires, also for the conveying away of smoke or noxious vapours from buildings, and for the ventilation of buildings and other places.	814	19th March 1866	Alexander Angus Croll.
Carts for distributing water, liquid manure and other fluids over roads and lands - -	889	27th March 1866	James Rawsthorne. Edward Hodson Bayley.
Improvements in sinking tubes, cylinders or caissons for the foundations of piers, lighthouses, quay walls and similar structures, and for the sinking of mine shafts and wells.	995	7th April 1866	Thomas Scott.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATERING, &c.—*continued.*			
An improved portable irrigator for watering gardens and other purposes.	1145	23rd April 1866	Josiah Pumphrey.
Fountains	1193	27th April 1866	John William Hoffman.
Construction of irrigators	1557	5th June 1866	Thomas William Wedlake.
A new or improved bottle fountain	1652	20th June 1866	Jean Nadal.
Apparatus for excavating (*for sinking wells.*)	1701	26th June 1866	John Milroy.
Improvements in apparatus for raising and forcing water and other liquids, applicable to the ejection of bilge water from vessels, the filling of the tanks of locomotive tenders and other purposes. (*Communicated by Henry Seagur Lansdell.*)	1717	27th June 1866	William Edward Newton.
Improvements in drawing or exhausting and forcing fluids, and in instruments or apparatus applicable to such purposes	1788	6th July 1866	Enoch Harrison Aydon. Edward Field.
An improved apparatus for irrigating the intestines, the vagina, the bladder, the brain, the eyes and eyelids.	1950	27th July 1866	Alexis Victor Mathieu.
Apparatus for raising aëriform and other fluids (*see* "PUMPS.") (*Communicated by Jeremiah William Foard.*)	1997	2nd Aug. 1866	George Campbell.
Apparatus for raising liquids, particularly applicable to fountains.	2167	23rd Aug. 1866	Eugene Rimmel.
Fountains	2169	23rd Aug. 1866	Alfred Long.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*for boring wells.*) (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Water supply	2428	21st Sept. 1866	Robert Richardson. John Imray.
Apparatus for drawing and preventing waste of water from service pipes or cisterns.	2457	25th Sept. 1866	James Chandler.
Pump valves, stop and let off cocks or valves, especially adapted for hydraulic presses and high-water pressure. (*Communicated by George Brunton.*)	2883	6th Nov. 1866	Charles James Robinson.
Improvements in treating excrementitious matters and other refuse matters, for the purpose of obtaining valuable products therefrom, and in apparatus to be employed for that purpose. (*also irrigating.*)	3401	28th Dec. 1866	William Bradburn.
See also "VALVES." For water pipes, *see* "PIPES." For supplying water to boilers, *see* "STEAM-BOILERS."			

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATERPROOF, FIREPROOF AND AIRPROOF FABRICS, BUILDINGS, &c.; WATERPROOFING, FIREPROOFING AND AIR-.. PROOFING.			
Making building bricks impervious to water or waterproof.	40	5th Jan. 1866	Elias Taylor.
Construction of fireproof floors for buildings -	224	23rd Jan. 1866	Richard Moreland Junr.
Manufacture of fabrics composed of india-rubber and cotton or other vegetable fibres.	499	16th Feb. 1866	James Heywood Whitehead.
An improved apparatus for saving life at sea, also adapted for use on all occasions to keep persons afloat in water.	658	3rd March 1866	Candido Ravelli.
An improvement in the manufacture of waterproof paper.	675	6th March 1866	Reuben German Allerton.
Cricket balls, racket, tennis and foot balls - (*rendering waterproof.*)	739	10th March 1866	Charles Huntley.
Machinery and apparatus employed in the manufacture of waterproof and other fabrics.	782	16th March 1866	Thomas Briggs Junr.
The application and use of a certain material to be employed in admixture with india-rubber, oils, resins or bituminous matters, which combinations may be applied to various useful purposes. (*for waterproofing.*)	871	24th March 1866	James Buckingham.
Improvements in charts, maps, plans, illuminated and other printed articles, by the use of a waterproof and untearable material as a substitute for paper.	1153	24th April 1866	Rachel Stackhouse.
An improved corn rick stand and waterproof cover	1991	2nd Aug. 1866	John Beacham Ham.
Improvements in waterproofing textile fabrics and in preserving leather, cork, wood and vulcanized india-rubber, also terra-cotta, stucco, brick and like substances.	2084	14th Aug. 1866	Charles Francis Baxter.
An improved method of treating limestone and applying the products for purifying and rendering water palatable, and for imparting a briskness to other beverages, as also for utilising the substances to the various purposes of the builder. (*rendering wood, bricks, &c. impervious to water.*)	2230	29th Aug. 1866	James Davis.
Waterproofing leather, canvas and other fabrics -	2443	22nd Sept. 1866	John Robert Johnson. Frederick Gale.
Manufacture of artificial fuel - - - (*making waterproof.*)	2534	3rd Dec. 1866	David Barker.
An improved composition for coating walls or other surfaces so as to render them impervious to the action of water or moisture.	2850	3rd Nov. 1866	Richard Jarraud Jay.
Manufacture of boots and shoes - - -	3008	16th Nov. 1866	James Vero.
Manufacture or preparation of leather and other materials. (*rendering impervious.*) (*Communicated by Jean François Piedallu.*)	3114	26th Nov. 1866	William Clark.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*waterproof coating.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Machabée.*)	3130	28th Nov. 1866	William Clark.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATERPROOF, &c.—*continued.*			
Treatment of gelatinous tissues of gelatine and gum, and of compounds containing such substances. (*glaze for waterproofing.*)	3303	15th Dec. 1866	Joseph Wilson Swan.
An improved mode of rendering paint uninflammable. (*Communicated by Joseph Benvhue Harris.*)	3327	18th Dec. 1866	William Robert Lake.
WATERWHEELS AND ENGINES; HYDRAULIC MOTIVE-POWER.			
Hydraulic machinery (*waterwheels.*)	279	29th Jan. 1866	Alfred Arthur. Benjamin Davis.
Water-wheels	1099	19th April 1866	Ebenezer Tuttle.
Engines worked by steam or other fluid	1146	23rd April 1866	Edward Heinson Huch. Francis Joseph Windhausen.
Valves for steam and other engines	1304	8th May 1866	Mathew Hutton Atkinson.
Improvements in motive-power engines, and in the mode of applying water, steam, compressed air and other liquids and gases for driving the same.	1451	23rd May 1866	Sholto Douglas.
Rotary steam and hydraulic engines	1461	25th May 1866	Wilhelm Heinrich Christian Voss.
An improved construction of rotary engine (*Communicated by Henry John Behrens, Henry Curtis Dart and Edward Dart.*)	1674	22nd June 1866	Alfred Vincent Newton.
Pistons and cylinders (*for hydraulic engines.*)	1711	27th June 1866	Thomas Kennedy junr. James Barr.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	1822	11th July 1866	Robert William Fraser.
Motive-power engines	1848	14th July 1866	William Justice.
Steam slide valves for locomotive, marine and general steam-engines, and water valves.	1939	26th July 1866	William Edward Kochs.
Water-power engines (*Communicated by William Lonsdale and William Peete.*)	2306	8th Sept. 1866	Edward Thomas Hughes.
New or improved modes of obtaining and transmitting motive-power, and in the machinery or apparatus employed therefor.	2330	10th Sept. 1866	Robert Bennett.
Improvements in fluid meters, also applicable to pumps and water pressure engines.	2434	21st Sept. 1866	John Mortimer Heppel.
Improvements in apparatus for the raising and propelling of water or other fluids, applicable likewise as a ship propeller, motive-power, fan, meter and for other purposes.	2598	9th Oct. 1866	Hugh Forbes.
Improvements in machinery or apparatus for raising or elevating sewage water and other liquid matters, also applicable as a means of affording motive-power from water.	2675	16th Oct. 1866	Thomas Woodward.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WATERWHEELS, &c.—*continued.*			
Machinery for applying hydraulic power to mining and other purposes	3395	26th Dec. 1866	Thomas Brown Jordan. John Darlington.
Hydrostatic rotatory motive-power engines	3431	29th Dec. 1866	Burrowes Willcocks Arthur Sleigh.
See also "GOVERNORS."			
WEARING-APPAREL, MILITARY OUTFITS; TAILORS' TRIMMINGS.			
A new and improved construction of pocket for male or female attire, whereby the property contained therein is rendered secure from theft or accidental loss.	313	1st Feb. 1866	George David Jones.
An improved method of and means for suspending or supporting trousers and other like garments from the person.	361	6th Feb. 1866	John Jones.
An improved manufacture of studs, buttons, ornamental plates and analagous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*cockades.*) (*Communicated by Lorenzo Salvy.*)	735	10th March 1866	William Edward Gedge.
Certain improvements in wearing-apparel	967	5th April 1866	Edmund Pearson.
Eyeletting machines (*Communicated by Charles Howard Crosby.*)	1095	18th April 1866	William Young Edwards.
Stamping on flatted or unflatted metals (*on military fittings.*)	1139	23rd April 1866	Michel Spiquel. Eugène Henry Florange.
An improved construction of pocket for male and female attire	1243	2nd May 1866	Joseph Robinson Towers. Thomas Clutterbuck. John Bell Muschamp.
Certain improvements in sewing-machines (*for making button holes.*)	1270	4th May 1866	Walker Bates Bartram.
A new system of application of pads of india-rubber or other elastic materials. (*as cuirasses, armlets, leggings, &c.*) (*Communicated by Major General Angelini.*)	1295	7th May 1866	Vitȧl de Tivoli.
An improved preparation of materials applicable for the manufacture of hats, caps, bonnets, coats, cloaks, gaiters and other articles of clothing, pouches, portfolios and other articles of capacity for enclosing various useful articles. (*Communicated by Maximilian Friedmann.*)	1572	7th June 1866	Joseph Julius Friedmann.
Certain improvements in wearing-apparel (*see* "SHIRTS.")	1650	20th June 1866	Edmond Pearson.
Improvements in the manufacture of trimmings and in the machinery employed therein.	1664	22nd June 1866	William Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEARING-APPAREL, &c.—*continued.*			
Certain improvements in fastenings for articles of dress - - - - - - (*for leggings, gaiters, &c.*)	1690	25th June 1866	John Reading. Samuel Alfred Reading. George Edward Reading. Frederick Francis Reading.
Construction and arrangement of the fastenings of leggings, gaiters, antigropelos and such like articles of dress.	1773	4th July 1866	Alfred Myerns.
Manufacture of the handles of sad irons and other smoothing and tailors' and hatters' irons.	2313	8th Sept. 1866	John Silvester.
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
Certain improvements in machinery or apparatus to be employed in cutting textile fabrics - (*for making garments.*)	2350	13th Sept. 1866	Edmund Phillips. James Howie.
Means of securing pocket books and other portable articles on the person. (*to garments.*) (*Communicated by Theodore Neuscheller.*)	2504	27th Sept. 1866	Friedrich Wilhelm Constantin Dromtra.
An improved apparatus for fitting garments - (*Communicated by Silas Otis Brigham.*)	2517	29th Sept. 1866	Henri Adrien Bonneville.
Manufacture of certain articles of dress or wearing-apparel, such as coats, trousers, vests, jackets, mantles, cloaks, shirts, drawers and similar articles.	2577	6th Oct. 1866	Samuel Leather.
Certain improvements in wearing-apparel, known as the shirt or shirt front and the trousers.	2751	25th Oct. 1866	William Calvert.
An improved rivetting press for securing buttons to fabrics. (*Communicated by Willoughby Hahn Reed.*)	2780	27th Oct. 1866	George Davies.
Improvements in buttons and in the attachment of buttons to garments and fabrics.	2781	27th Oct. 1866	George Augustus Huddart.
The improved manufacture of coverlets, rugs, quilts or covers for beds and certain articles of wearing-apparel and as a stuffing for cushions and pillows. (*wrappers.*)	2885	7th Nov. 1866	Edward Huxley.
Finishing parts of woollen garments - - (*see* "SHIRTS.")	2936	10th Nov. 1866	Frederick Bruce Donisthorpe.
Knapsacks, valises and other portable cases -	3019	17th Nov. 1866	Nicolas Michel Marin.
Certain improvements in machinery or apparatus for pressing, smoothing or ironing the surfaces of fabrics. (*tailors' "goose."*)	3211	6th Dec. 1866	Louis Cobe.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*for trimmings.*)	3225	7th Dec. 1866	William Guest.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEARING-APPAREL, &c.—*continued.*			
Manufacture of trowsers	3437	31st Dec. 1866	Thomas William Couldery.
Manufacture of elastic gussets (*see* "BOOTS.")	3451	31st Dec. 1866	James Miller. James Miller Junr.
See also "BUTTONS." „ "GLOVES." „ "HATS." „ "SHIRTS." „ "PETTICOATS."			
WEAVING, BRAIDING, PLATTING; PREPARING FOR WEAVING.			
I.—Sizing, Warping, Beaming and Preparing Yarns for Weaving.			
Machinery or apparatus for warping and making leashes in warps for tape-sizing machines	159	17th Jan. 1866	John Wild. John Kershaw.
Machinery or apparatus for sizing or preparing yarns or warps to be woven	271	27th Jan. 1866	Samuel Cook. William Henry Hacking.
Bleaching, dyeing, printing and sizing cotton and other yarns or threads.	468	14th Feb. 1866	James Barlow.
An improved composition or preparation for sizing cotton, linen or woollen yarns, and other similar substances	674	6th March 1866	George Haworth. Thomas Parrington. William Hudson.
Machinery or apparatus to be employed for sizing or dressing yarns or threads.	940	2nd April 1866	Robert Dewhurst.
Certain improvements in connection with sizing machines or tape legs.	1070	16th April 1866	Samuel Bennett.
Machinery for warping, dressing, sizing and beaming yarn.	1086	18th April 1866	William Bullough.
Improved machinery for warping or preparing warps for weaving.	1103	19th April 1866	Archbald Turner.
Machinery for hammering cylinders and other articles of sheet metal (*for sizing machines.*)	1362	12th May 1866	William Harrison. John Harrison. Henry Harrison.
Machines for winding or warping and drying yarns	1911	23rd July 1866	Thomas Andrews.
Improvements in preparing fibrous materials to be spun, parts of which are applicable to the warping of yarns or threads, and other parts to the washing of yarns and textile fabrics.	2603	9th Oct. 1866	James Conlong.
Improvements in and apparatus for sizing cotton warps.	2659	15th Oct. 1866	George Lake junr.
Certain improvements in the preparation of size and in apparatus connected therewith.	3311	17th Dec. 1866	Henry Hall.
Improved machinery or apparatus for sizing cotton, flax, hemp and other thread or yarn.	3385	22nd Dec. 1866	François Beltzer.
Improvements in or applicable to machines for sizing yarns or threads preparatory to weaving, part of which improvements are applicable to other purposes	3397	26th Dec. 1866	James Fletcher. William Carr.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
II.—Weaving Plain, Figured and Doubled Fabrics; Jacquards and Looms; Woven Fabrics.			
Looms for weaving	1	1st Jan. 1866	John Bullough. William Rossetter.
Power looms	28	4th Jan. 1866	Robert Willan.
Looms for weaving	36	5th Jan. 1866	John Moore. Henry Moore. George Lund.
Certain improvements in looms for weaving	52	8th Jan. 1866	Thomas Sagar. George Keighley. Joseph Clegg. Thomas Richmond.
Looms for weaving	59	9th Jan. 1866	Henry Moore. Thomas Richmond.
Looms for weaving	118	13th Jan. 1866	William Gadd. John Moore.
Manufacture of umbrellas (*weaving the cloth.*)	179	19th Jan. 1866	Michael Jackson.
Looms for weaving	234	24th Jan. 1866	David Lord. Thomas Lancaster. Robinson Bennett.
Looms for weaving (*Communicated by Henry Benninger, Jacques Benninger and Ulrick Benninger.*)	236	24th Jan. 1866	George Tomlinson Bousfield.
Looms for weaving	250	25th Jan. 1866	John Alfred Castree.
Certain improvements in looms for weaving	303	31st Jan. 1866	Robert Clayton. James Raper. John Goulding. William Howarth.
Looms for weaving	318	1st Feb. 1866	John Bulcock. John Bulcock the younger.
Certain improvements in looms for weaving	323	2nd Feb. 1866	Joseph John Harrison. Edward Harrison.
Looms for weaving a certain kind of cloth or fabric.	382	8th Feb. 1866	William Samuel Laycock.
Certain improvements in looms for weaving	401	9th Feb. 1866	John Walker.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving	417	10th Feb. 1866	John Binns. William Binns.
Certain improvements in apparatus to be employed in the manufacture of hair cloth.	418	10th Feb. 1866	John Ryley.
Certain improvements in the manufacture of textile fabrics termed 'Moleskins' or imperials and velveteens	432	12th Feb. 1866	Robert Wolstenholme. Richard Green Rodgers.
Certain improvements in looms for weaving	465	14th Feb. 1866	Joseph Holding. Peter Todd.
Looms for weaving	509	17th Feb. 1866	Henry Lea.
Looms for weaving a certain class of fabrics (*with puckered stripes.*)	542	21st Feb. 1866	John Smalley.
Certain improvements in looms for weaving	903	28th March 1866	Robert Mayor Graystock.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Looms for weaving (*Communicated by George Crompton.*)	912	29th March 1866	William Robert Lake.
Looms for weaving	942	2nd April 1866	William Chew. John Chew. West John Lucas.
Power looms for weaving (*Communicated by William Breitenstein.*)	951	3rd April 1866	William Edward Newton.
Jacquard looms or machinery for weaving	957	4th April 1866	Pierre Joseph Macaigne.
Manufacture of double fabrics	994	7th April 1866	John Patterson.
Certain improvements in looms for weaving	1004	7th April 1866	John Lacey Davies.
Apparatus for producing loom-sewed fabrics	1030	11th April 1866	William Wishart. Peter Cameron.
Looms for weaving	1067	16th April 1866	Charles Richardson.
Power looms (*Communicated by Philo Ward Hart and Daniel Clark Tibbals.*)	1069	16th April 1866	Alfred Vincent Newton.
A new method of manufacturing woven fabrics	1155	24th April 1866	Eugène Burle.
Certain improvements in looms for weaving (*Communicated by Paul Rebuschinsky and William Cheetham.*)	1199	28th April 1866	John Lacey Davies.
Looms for weaving	1222	1st May 1866	Henry Lea.
Looms for weaving	1237	2nd May 1866	Henry Moore. Thomas Sagar. George Keighley. Thomas Richmond.
Manufacture of yarns or threads and woven fabrics from wool or wool combined with other materials. (*see* "SPINNING.") (*Communicated by Stanislas Vigoureux.*)	1259	3rd May 1866	George Tomlinson Bousfield.
Looms for weaving	1335	10th May 1866	David Sowden. Reuben Calvert Stephenson.
Looms for weaving	1429	21st May 1866	William Gadd. John Moore.
Weaving ornamental fabrics	1455	24th May 1866	John Cunningham. Robert Cunningham.
Preparing fibrous materials for spinning and weaving. (*see* "SPINNING.") (*Communicated by Stanislas Vigoureux.*)	1527	31st May 1866	George Tomlinson Bousfield.
Certain improvements in looms for weaving	1558	6th June 1866	James Hopwood.
Certain improvements in looms for weaving	1613	14th June 1866	Joseph John Harrison. Edward Harrison.
Looms for weaving	1630	16th June 1866	William Robertson. James Guthrie Orchar.
Manufacture of machine wires (*wire cloth.*)	1772	4th July 1866	William M'Allum.
Looms for weaving	1775	4th July 1866	Thomas Sagar. Thomas Richmond.
Looms for weaving stays and similar uneven fabrics	1780	6th July 1866	Charles Hepstonstall.
Looms for weaving	1791	6th July 1866	Jean Monnier. Charles D'Hondt. Joseph Meurant.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Means or apparatus for the production of fancy or figure weaving.	1929	25th July 1866	Julius Boeddinghaus.
Looms for weaving - - - - -	1931	25th July 1866	Henry Lea. Thomas Lane.
Improvements in ornamental weaving and in apparatus employed therein.	1953	27th July 1866	John Orr.
Certain improvements in jacquard machines -	2050	9th Aug. 1866	John Brown. John Hiton.
Woven fabrics - - - - - - (*see* "FULLING.")	2090	15th Aug. 1866	James Alfred Turner.
Battens - - - - - - -	2102	15th Aug. 1866	John Cooper.
Looms for weaving - - - -	2186	25th Aug. 1866	Charles Richardson.
Looms for weaving - - - -	2212	28th Aug. 1866	Richard Buckton.
Looms - - - - - - (*Communicated by Thomas Robjohn.*)	2229	29th Aug. 1866	John Garrett Tongue.
Certain improvements in looms for weaving -	2246	31st Aug. 1866	John Owens.
An improvement in certain textile fabrics - - (*see* "PRINTING.")	2249	1st Sept. 1866	John Oates Greenwood.
Looms for weaving - - - -	2292	6th Sept. 1866	John Bullough.
Looms for weaving - - - - -	2308	8th Sept. 1866	Christopher Catlow.
Manufacture or ornamentation of cloth and pile fabrics. (*see* "CEMENTED FABRICS.") (*Communicated by Pierre Bouvier, Benôit Bouvier, Jean Baptiste otherwise Jules Bouvier, and Geoffroy Bouvier.*)	2351	13th Sept. 1866	William Clark.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Picker motions for looms - - - - (*Communicated by Hosea Elliott.*)	2427	21st Sept. 1866	William Clark.
Certain improvements in looms for weaving gauzes and other fancy goods. (*Communicated by Louis Joseph Gras, Charles Isaac Dumontier and Léon Gras, senior.*)	2477	26th Sept. 1866	William Edward Gedge.
Machinery for weaving wool and other fibrous materials. (*see* "SPINNING.") (*Communicated by Célestin Martin.*)	2482	26th Sept. 1866	Henri Adrien Bonneville.
Power looms - - - - - -	2503	27th Sept. 1866	Erastus Brigham Bigelow.
Manufacture of certain articles of dress or wearing-apparel, such as coats, trousers, vests, jackets, mantles, cloaks, shirts, drawers and similar articles.	2577	6th Oct. 1866	Samuel Leather.
Looms for weaving - - - -	2620	10th Oct. 1866	John Bullough.
Looms for weaving - - - -	2628	11th Oct. 1866	David Crichton. William Donbavand. Duncan Crighton.
Looms for weaving - - - -	2648	13th Oct. 1866	Thomas Sagar. Thomas Richmond.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
The application of enamel to certain friction surfaces of looms for weaving. (*guide bars for pickers.*) (*Communicated by Edmond Sée and Paul Sée.*)	2650	13th Oct. 1866	Louis Rudolph Bodmer.
Looms for weaving	2654	13th Oct. 1866	William Rossetter.
Apparatus for working the healds employed in looms for weaving	2682	17th Oct. 1866	Richard Longden Hattersley. John Smith.
Certain improvements applied to jacquard looms (*Communicated by Charles Devillaine.*)	2693	18th Oct. 1866	William Edward Gedge.
Power looms	2710	19th Oct. 1866	Erastus Brigham Bigelow.
Looms for weaving	2820	31st Oct. 1866	John Keighley.
Looms for weaving	2822	31st Oct. 1866	Richard Holden.
Improved means or apparatus for producing figured woollen fabrics or other fabrics capable of being figured. (*see* "EMBOSSING.")	2865	5th Nov. 1866	Thomas Dunnill Clapham.
Looms for weaving	2918	9th Nov. 1866	David Crichton. Duncan Crighton. William Donbavand.
Looms for weaving	2978	14th Nov. 1866	James Whitehead.
Looms for weaving (*Communicated by George Crompton.*)	2990	15th Nov. 1866	William Robert Lake.
Power looms	2993	15th Nov. 1866	William Newcombe Atkinson.
Looms for weaving	3003	16th Nov. 1866	James Sellers.
A new manufacture of ladies' skirts (*Communicated by Morris Opper.*)	3009	16th Nov. 1866	Alfred Vincent Newton.
Arranging and driving the shafting of "loom sheds."	3096	24th Nov. 1866	William Beckett Johnson.
Looms for weaving	3167	3rd Dec. 1866	James Nuttall.
Manufacture of "weft forks" used in power looms for weaving cotton, worsted or silk, or any suitable material.	3184	4th Dec. 1866	John Broadbent.
Looms for weaving	3190	4th Dec. 1866	Edward Louis Paraire.
Looms and shuttles for weaving (*Communicated by Benjamin Oldfield and Edward Oldfield.*)	3217	6th Dec. 1866	George Haseltine.
Improvements in the manufacture of yarns used for weaving textile fabrics and in the machinery or apparatus employed therefor (*see* "FABRICS.")	3231	7th Dec. 1866	Robert Smith. John Ramage.
Looms for weaving	3254	11th Dec. 1866	Robert Clayton. James Raper. John Goulding. William Howarth.
Looms for weaving (*Communicated by John Bailey.*)	3257	11th Dec. 1866	Clinton Edgcumbe Brooman.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
III.—Weaving Carpets, Velvets and other Pile and Terry Fabrics; Carpet Looms.			
Manufacture of fabrics suitable for covering furniture, for carpets, window curtains, linings for carriages and for other like purposes. (*see* "CEMENTED FABRICS.") (*Communicated by Thomas Allen Jenckes.*)	72	9th Jan. 1866	Hiram Hutchinson.
Certain improvements in the manufacture of textile fabrics termed 'Moleskins' or imperials and velveteens - - - - -	432	12th Feb. 1866	Robert Wolstenholme. Richard Green Rodgers.
Jacquard looms for weaving cut pile fabrics double (*Communicated by Anton Funk, Carl Emil Becker and August Hoffbauer.*)	846	22nd March 1866	Charles Denton Abel.
Manufacture of carpets and other goods having a raised terry or pile face. (*Communicated by The American Waterproof Cloth Company (Incorporated).*)	964	4th April 1866	William Edward Newton.
Manufacture of double fabrics - - - (*piled fabrics.*)	994	7th April 1866	John Patterson.
Improvements in looms for weaving Dutch carpets by power, and in the manufacture of such fabrics.	1685	25th June 1866	Edward Hemingway.
Manufacture of ribbed pile fabrics - -	1774	4th July 1866	Joseph Clegg. John Smith.
Certain improvements in looms for weaving carpets and other pile fabrics, part of which improvements are applicable to other looms for weaving fancy fabrics.	2258	3rd Sept. 1866	Mark Knowles.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
IV. — Knitting; Lace Making; Stocking Frames; Warp Fabrics; Nets and Meshed Fabrics.			
Machinery or apparatus employed in the manufacture of looped or knitted fabrics - -	111	13th Jan. 1866	William Comery. Henry Webster.
Circular frames for the manufacture of looped fabrics. (*Communicated by Emile Lecœur.*)	134	15th Jan. 1866	Richard Archibald Brooman.
Improvements in the manufacture of fabrics in bobbin net or twist lace machinery, and in the means or apparatus employed therein.	221	23rd Jan. 1866	William Hodgkinson.
Process of dyeing and manufacture of textile fabrics. (*see* "DYEING.")	345	3rd Feb. 1866	Francis Bryan Baker.
Manufacture of Valenciennes lace in twist lace machines - - - - - -	350	5th Feb. 1866	William Spencer. Thomas Butler Cutts.
Manufacture of lace, gauze, net or elastic fabrics of that description.	551	22nd Feb. 1866	Narcisse Legendre.
Manufacture of certain kinds of lace - -	589	26th Feb. 1866	Charlotte Elizabeth Treadwin.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Improvements in ornamenting lace fabrics and in the machinery or apparatus employed therein. (*see* "CEMENTED FABRICS.")	656	3rd March 1866	Charles Grey Hill.
Manufacture of lace in twist lace machines -	776	15th March 1866	Benjamin William Selby.
Manufacture of lace, gauze, net or elastic fabrics -	937	2nd April 1866	Narcisse Legendre.
A new knitting machine - - - (*Communicated by Jonas Hinkley.*)	948	3rd April 1866	Charles Albert Shaw.
Bobbin net or lace machinery - - -	969	5th April 1866	François Rebière.
Manufacture of tubular or double fabrics in warp machinery.	1083	17th April 1866	Thomas Haimes.
Machinery for the manufacture of looped fabrics -	1114	20th April 1866	Friedrich Ehreg Woller.
The application of improved apparatus to knitting looms.	1185	27th April 1866	François Antoine Renault.
An improved method or system of producing mattings or tabby weavings, in lace manufactured in twist lace machines. (*Communicated by Leon Berquier.*)	1290	5th May 1866	James Hartshorn.
Manufacturing textile fabrics - - -	1428	21st May 1866	Adolphe Casse.
Machinery for the manufacture of fishing and other nets.	1619	14th June 1866	John Bellamy Payne.
Machinery for the manufacture of fishing and other nets.	1634	16th June 1866	William Maunder Ward.
Improvements in perfecting or ornamenting lace and other like fabrics, and also in imitations of the same. (*see* "PRINTING.") (*Communicated by Auguste Pascal and Felix Varenne.*)	2220	28th Aug. 1866	William Clark.
Improvements in the manufacture or production of looped fabrics made on warp lace machines, and in the machinery or apparatus employed therein - - - - - - -	2221	28th Aug. 1866	Henry Carrier. William Vickers Copeland.
Manufacture of ornamental lace in twist lace machines.	2290	6th Sept. 1866	William Selby.
Lace machinery - - - - - (*Communicated by Désiré Sival and Léon Sival.*)	2461	25th Sept. 1866	Clinton Edgcumbe Brooman.
Lace fabrics - - - - - - (*see* "PRINTING.") (*Communicated by Auguste Pascal and Félix Varenne.*)	2945	10th Nov. 1866	William George Edward Swinnock.
Manufacture of lace made in twist lace machines -	3213	6th Dec. 1866	William Selby.
Improvements in machinery or apparatus for linking, joining, turning off and clearing looped or or knitted fabrics, applicable also to stitching machines.	3305	15th Dec. 1866	William Campion.
Manufacture of elastic and ribbed fabrics - -	3350	20th Dec. 1866	Samuel Belfield.
V.—Weaving Fringes, Ribbons, Producing Braid; Platting.			
Improvements in elastic fabrics, and in the application thereof to the manufacture of boots and shoes. (*Communicated by Isaac Heer.*)	348	5th Feb. 1866	Charles Denton Abel.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Braiding and weaving machines - - - (*Communicated by Florence Lucas Veerkamp and Charles Francis Leopold.*)	945	3rd April 1866	George Davies.
Manufacture of elastic fabrics - - -	986	6th April 1866	William Cole.
Improvements in cordage, webbing and similar articles, and in machinery for manufacturing the same. (*Communicated by James Amiraux Bazin.*)	1318	8th May 1866	George Tomlinson Bousfield.
Improvements in the manufacture of trimmings and in the machinery employed therein.	1664	22nd June 1866	William Smith.
Machinery for making covered twist and cord - (*Communicated by John Turner and Isaac Emerson Palmer.*)	1835	12th July 1866	William Edward Newton.
A moveable shuttle distributor applicable to fringe machinery, and also for certain useful improvements in fringe machines.	2051	9th Aug. 1866	Barthélemy Donnet.
Manufacture of elastic and other fabrics - - (*brace webbing.*)	2100	15th Aug. 1866	William Shaw. James Connell.
Battens - - - - - - - (*for weaving brace webs.*)	2102	15th Aug. 1866	John Cooper.
An improvement in braiding machines and warp regulators.	2369	14th Sept. 1866	William Tunstill.
Braiding machines - - - - - -	2694	18th Oct. 1866	Richard Furnival.
Fringes, tassels, and such like upholsterers' trimmings. (*see* "UPHOLSTERY.")	2715	20th Oct. 1866	George Dixon.
Improved taking up apparatus applicable to machinery for the manufacture of elastic fabrics. (*braids.*)	2772	26th Oct. 1866	Archibald Turner.
Machinery for the manufacture of elastic fabrics - (*braiding machines.*)	3151	30th Nov. 1866	Luke Turner.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*by plaiting or interweaving.*)	3225	7th Dec. 1866	William Guest.
VI.—Shuttles and Weft Forks.			
Certain improvements in looms for weaving - (*swivel shuttles.*)	303	31st Jan. 1866	Robert Clayton. James Raper. John Goulding. William Howarth.
Looms for weaving a certain kind of cloth or fabric	382	8th Feb. 1866	William Samuel Laycock.
Certain improvements in apparatus to be employed in the manufacture of hair cloth.	418	10th Feb. 1866	John Ryley.
Shuttle tongues - - - - - -	507	17th Feb. 1866	Samuel Nelson.
Looms for weaving - - - - - -	509	17th Feb. 1866	Henry Lea.
Shuttles for weaving - - - - -	596	27th Feb. 1866	William Allanson. Robert Lowe.
Shuttles - - - - - - -	928	31st March 1866	Adam Bullough.
Bobbin net or lace machinery - - -	989	5th April 1866	François Rebière.
Looms for weaving - - - - -	1067	16th April 1866	Charles Richardson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Improvements in cop tubes and in shuttle skewers	1183	27th April 1866	James Strang.
Shuttles	1268	4th May 1866	Richard Darragh.
Improvements in weft forks and in tools employed in the manufacture thereof.	1506	30th May 1866	Hugh Schofield.
Machinery for the manufacture of fishing and other nets. (*shuttle.*)	1634	16th June 1866	William Maunder Ward.
Construction of shuttle tongues	1799	9th July 1866	Thomas Ivers. Jesse Haddock.
Tubes and skewers for cops (*in weaving.*)	1928	25th July 1866	James Strang.
Shuttles used for weaving	1967	31st July 1866	Thomas Bullough. George Openshaw.
A moveable shuttle distributor applicable to fringe machinery, and also for certain useful improvements in fringe machines.	2051	9th Aug. 1866	Barthélemy Donnet.
Looms and shuttles for weaving (*Communicated by Benjamin Oldfield and Edward Oldfield.*)	3217	6th Dec. 1866	George Haseltine.
VII.—Temples, Pickers, Healds and Reeds.			
Looms for weaving	38	5th Jan. 1866	John Moore. Henry Moore. George Lund.
Certain improvements in looms for weaving (*construction of reed.*)	52	8th Jan. 1866	Thomas Sagar. George Keighley. Joseph Clegg. Thomas Richmond.
Weavers' healds or heddles	282	29th Jan. 1866	William Randal Harris.
Certain improvements in looms for weaving (*making reeds more durable.*)	465	14th Feb. 1866	Joseph Holding. Peter Todd.
Reeds used in looms for weaving	546	22nd Feb. 1866	Matthew Robinson. John Robinson. William Smith.
Manufacture of elastic reeds and combs for weaving and other purposes.	555	23rd Feb. 1866	James Pass.
Improvements in the manufacture of healds and reeds or combs, and in the machinery employed therein	572	24th Feb. 1866	William Richmond. Thomas Richmond. James Richmond.
Certain improvements in looms for weaving (*temples.*)	1004	7th April 1866	John Lacey Davies.
Certain improvements in looms for weaving (*healds.*) (*Communicated by Paul Rebuschinsky and William Cheetham.*)	1199	28th April 1866	John Lacey Davies.
Pickers for looms	1241	2nd May 1866	James Shorrock. George Shorrock.
Self-acting temples for looms for weaving	1269	4th May 1866	Thomas Blezard. James Blezard. John Blezard. Norman Blezard.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Manufacture of reeds for weaving and other purposes.	1425	19th May 1866	John Carter Ramsden.
Heddles or healds for weaving	1436	22nd May 1866	James McLintock. John Jagger.
Certain improvements in looms for weaving (*temples.*)	1558	6th June 1866	James Hopwood.
Certain improvements in looms for weaving (*temples.*)	1613	14th June 1866	Joseph John Harrison. Edward Harrison.
Reeds or combs for weaving or other purposes	2444	22nd Sept. 1866	John Carter Ramsden.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*wire healds.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
VIII.—Letting off and Taking-up motion; Stopping Looms.			
Looms for weaving (*stop motion.*)	234	24th Jan. 1866	David Lord. Thomas Lancaster. Robinsoft Bennett.
Looms for weaving (*taking up.*)	318	1st Feb. 1866	John Bulcock. John Bulcock the younger.
Certain improvements in looms for weaving	903	28th March 1866	Robert Mayor Graystock.
Power looms for weaving (*Communicated by William Breitenstein.*)	951	3rd April 1866	William Edward Newton.
Looms for weaving	1335	10th May 1866	David Sowden. Reuben Calvert Stephenson.
Looms for weaving (*uptake.*)	1630	16th June 1866	William Robertson. James Guthrie Orchar.
Looms for weaving (*letting off motion.*)	1775	4th July 1866	Thomas Sagar. Thomas Richmond.
Looms for weaving stays and similar uneven fabrics. (*taking up.*)	1790	6th July 1866	Charles Heptonstall.
Looms for weaving (*"take up."*)	2212	28th Aug. 1866	Richard Buckton.
Looms for weaving	2292	6th Sept. 1866	John Bullough.
Looms for weaving (*take-up.*)	2308	8th Sept. 1866	Christopher Catlow.
An improvement in braiding machines and warp regulators. (*automatic let off.*)	2369	14th Sept. 1866	William Tunstill.
Power looms	2503	27th Sept. 1866	Erastus Brigham Bigelow.
Looms for weaving (*stopping.*)	2620	10th Oct. 1866	John Bullough.
Looms for weaving (*taking up.*)	2628	11th Oct. 1866	David Crichton. William Donbavand. Duncan Crighton.
Looms for weaving (*taking up.*)	2648	13th Oct. 1866	Thomas Sagar. Thomas Richmond.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEAVING, &c.—*continued.*			
Braiding machines	2694	18th Oct. 1866	Richard Furnival.
Improved taking up apparatus applicable to machinery for the manufacture of elastic fabrics.	2772	26th Oct. 1866	Archibald Turner.
Certain improvements in that portion of a loom that is employed in 'taking up' the cloth.	2905	8th Nov. 1866	Thomas Kershaw.
Improvements in looms for manufacturing pile fabrics, part of which improvements are applicable to the manufacture of other fabrics. (*take up.*) (*Communicated by William Greenwood Hartley.*)	3098	24th Nov. 1866	George Haseltine.
Manufacture of 'weft forks' used in power looms for weaving cotton, worsted or silk, or any suitable material. (*for stopping the loom.*)	3184	4th Dec. 1866	John Broadbent.
Looms and shuttles for weaving (*break and stop motion.*) (*Communicated by Benjamin Oldfield and Edward Oldfield.*)	3217	6th Dec. 1866	George Haseltine.
Looms for weaving (*stopping the tappet shaft.*)	3254	11th Dec. 1866	Robert Clayton. James Raper. John Goulding. William Howarth.
Looms for weaving (*taking up motion.*) (*Communicated by John Bailey.*)	3257	11th Dec. 1866	Clinton Edgcumbe Brooman.
WEIGHING-MACHINES, SCALES, INDICATING WEIGHT.			
An improved turntable and weighing-machine combined	78	10th Jan. 1866	Jonathan Ireland. Samuel Davies.
Improvements in weighing-machines and in apparatus for reducing to weight, part of which improvements are applicable for feeding blanks to coining presses and to other machines.	108	12th Jan. 1866	James Murdock Napier.
Weighing-apparatus	543	21st Feb. 1866	Nathaniel Richard Hall.
Weighing-machines (*Communicated by George Mayo.*)	608	27th Feb. 1866	William Robert Lake.
Weighing scales (*Communicated by Daniel Hand Wilcox.*)	720	9th March 1866	Edward Thomas Hughes.
Improved means of ascertaining the weight and postage of letters. (*Communicated by Hippolyte Adeon Depierris.*)	742	12th March 1866	Henri Adrien Bonneville.
Improvements in overhead railways, and in machinery for moving, turning and weighing goods, wagons, carriages and engines for railway and other purposes.	1676	23rd June 1866	Thomas Deakin.
An improved spirit meter (*and weighing apparatus.*) (*Communicated by William Murphy.*)	1692	25th June 1866	William Edward Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WEIGHING-MACHINES, &c.—*continued.*			
Double hydrostatic scales for determining the load of ships or boats. (*Communicated by Wilhelm Oscor Reim.*)	2041	8th Aug. 1866	William Clark.
Weighing-machines	2253	1st Sept. 1866	Pierre François Michaud.
Weighing-machines and indicators	2311	8th Sept. 1866	Christopher Hodgson. James Whitley Stead.
An improved construction of weight (*see* "CLOCKS.") (*Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.*)	2430	21st Sept. 1866	Alfred Vincent Newton.
WHEELS FOR CARRIAGES, RAILWAY WHEELS; WHEEL TIRE, &c.			
Machinery for rolling hoops or tyres for wheels or other purposes.	30	4th Jan. 1866	Thomas Edward Vickers.
Moulds for casting the tyres of railway wheels and other annular and cylindrical articles.	103	12th Jan. 1866	Josiah Timmis Smith.
The improvement of the wheels of carriages, waggons, trucks and other rolling stock in use on railways, excepting those of breaks and locomotive engines, whereby the traction power of the latter is relatively greatly increased.	182	20th Jan. 1866	Reinhold Edward Kaulbach.
Locomotive engines designed for ascending steep inclines. (*wheels.*)	284	29th Jan. 1866	Alexander Chaplin.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*wheels.*)	369	7th Jan. 1866	Uriah Scott.
Manufacture of wheels for vehicles, railway rolling stock, the propulsion of vessels and other purposes.	409	9th Feb. 1866	George Fitzjames Russell.
Improvements in the construction of railway wheels and in attaching them to their axles, part of which improvements are applicable to other wheels	526	20th Feb. 1866	Clifford Etches Winby. Frederick Charles Winby.
A double action harvesting and mowing machine	528	20th Feb. 1866	William Mirabeau Wells.
Improvements in the manufacture of railway wheels and in apparatus for the same, which apparatus is also applicable for the manufacture of railway buffers.	803	17th March 1866.	Pierre Michaud.
A new compound applicable to the lining or covering of bearings, steps, axle boxes, journals and other frictional parts of machinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.	813	19th March 1866	Charles Stanley Osborne.
Arranging or combining the wheels and trams or ways for carriages on common roads	877	24th March 1866	Thomas Johnston. Thomas Wilson Rennie.
An improved mode of and apparatus for casting railway wheels and other articles of cast steel. (*Communicated by John Blake Tarr.*)	1001	7th April 1866	Alfred Vincent Newton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WHEELS, &c.—*continued.*			
Machinery for making moulds for casting iron and other metal - - - - - - (*wheels.*)	1631	16th June 1866	Asa Lees. James Brierley Slater.
Improved modes of applying packing of elastic or flexible materials to axletrees, springs and bearings of railway and other carriages, to rails, chairs and sleepers, and to frames of machines, for isolating them from contact and preventing noise. (*packing wheels.*)	1699	26th June 1866	Charles Peachey Holliss.
Improvements in the construction of railway rolling stock, and in the permanent way applicable thereto.	1745	30th June 1866	Telford Macneill.
Locomotive and traction engines - - -	1757	2nd July 1866	Charles James Appleby.
Mode of and apparatus for increasing the adhesion of locomotive engine wheels to their rails.	2015	4th Aug. 1866	Angelo Vescovali.
Manufacture of the wheels of carriages for conveying coals and other minerals in the working of mines. (*Communicated by Etienne Pagat.*)	2103	16th Aug. 1866	Henri Adrien Bonneville.
Tires for carriage wheels - - - -	2655	13th Oct. 1866	Smith Collins.
An 'auxiliary smith's fire' - - - - (*for heating wheels.*)	2843	2nd Nov. 1866	William Frost. John Henry Leather. James Nelson.
Improvements in the manufacture and casting of malleable iron and steel, and in furnaces and apparatus employed in the said manufacture, part of which improvements in apparatus is applicable to other purposes. (*casting tyres.*)	2940	10th Nov. 1866	Nicholas Korshunoff.
Improvements in locomotive engines and their permanent ways, applicable for steep gradients and alpine locomotion.	2986	14th Nov. 1866	Thomas Page.
Improvements in railway wheels and tyres, and in casting the same and other articles requiring a hard surface combined with strength and toughness.	3024	17th Nov. 1866	Jacques Hermann Auguste Gruson.
Wheels for carriages and vehicles - - - (*Communicated by Ellis Johnson Morton.*)	3026	19th Nov. 1866	Ellis Wesley Morton.
Construction of lathes - - - - (*for boring wheel tire.*)	3034	19th Nov. 1866	Thomas Greenwood.
An improved method of fixing or securing the tires of railway wheels.	3060	23rd Nov. 1866	William Wasteneys Smith.
Improved machinery for making cast-steel railway wheels and other castings in metal. (*Communicated by John Blake Tarr.*)	3123	27th Nov. 1866	Alfred Vincent Newton.
Improvements in the construction and manufacture of railway wheels called "disc wheels," formed from one piece or mass of iron or steel. (*Communicated by Jean Baptiste Helson.*)	3145	29th Nov. 1866	William Brookes.
Casting rings suitable for making tyres of railway wheels and for other purposes.	3414	28th Dec. 1866	Ernst Fredrik Göransson.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WHEELS FOR MACHINERY, COG-WHEELS, PULLEYS, CAMS. &c.			
Improvements in the manufacture of augers, and in the tools or instruments to be used in such manufacture. (*Communicated by Russell Jennings.*)	32	4th Jan. 1866	William Edward Newton.
Manufacture of toothed wheels for gearing shafts, axles and spindles.	95	11th Jan. 1866	Robert Mathers.
Rack pulleys for roller blinds for windows -	180	19th Jan. 1866	William Parsons.
Machinery for making moulds for casting metals - (*small toothed wheels.*)	196	20th Jan. 1866	William Thomas the younger.
An improved rotary steam-engine - - - (*tappet wheels.*)	778	15th March 1866	William Goodwin.
A new compound applicable to the lining or covering of bearings, steps, axle boxes, journals and other frictional parts of machinery, also to the construction of pulleys, wheel tyres, screw propellers and other like parts of machinery.	813	19th March 1866	Charles Stanley Osborne.
Improvements in pulleys gearing with chains, and in differential pulley blocks.	841	21st March 1866	Henry William Ley.
Apparatus for raising and lowering heavy bodies -	849	22nd March 1866	Robert Anthony Hardcastle.
Improvements in machinery or apparatus for shaking, riddling, raising and delivering straw, hay, corn and other like agricultural produce, and in the mode of driving or transmitting motion thereto, parts of which improvements are applicable to the driving or transmitting of motion to other machinery - - - (*toothed wheel.*)	1072	16th April 1866	James Hayes the elder. Josiah Hayes. James Hayes the younger.
A new wheel pinion for riggers driving operators -	1125	20th April 1866	Frederick Ruppert.
Machinery for making twist drills - - - (*cone pulleys.*) (*Communicated by Andrew Reynolds Arnold.*)	1164	25th April 1866	William Clark.
Apparatus for moulding toothed or other wheels or pulleys, or portions of circles, for casting.	1191	27th April 1866	Thomas Deakin.
Improvements in raising and lowering ships' boats and other weights, and in the apparatus used therefor.	1847	10th May 1866	Thomas Thornton.
Apparatus for raising weights - - - (*pulley blocks.*)	1672	22nd June 1866	William Eades. William Thomas Eades.
Manufacture of blocks or pulleys by machinery - (*Communicated by Arsène Bonnardel.*)	1702	26th June 1866	William Edward Gedge.
Machinery for forming the teeth of bevel wheels -	2010	3rd Aug. 1866	Peter Murray.
Improved machinery to be employed in the manufacture of banding or twine from cotton, worsted, linen or silk "cop bottoms," which machinery is also applicable to the manufacture of banding or twine from threads prepared for that purpose. (*change wheel.*)	2074	13th Aug. 1866	Edward Whalley.
Pulleys for hanging balance sashes - -	2216	28th Aug. 1866	Henry Morgan.
Clod-crushers and press wheel rollers - - -	2268	3rd Sept. 1866	William Colborne Cambridge.
Improvements in working cords, straps or chains with pulleys, also in differential pulley blocks, and in apparatus for pawling or retaining.	2398	18th Sept. 1866	Henry William Ley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee
WHEELS, &c.—*continued.*			
Improvements in steam-engines, part of which invention is also applicable to fixing excentrics, cams or pulleys on to the shafts of other machinery.	2566	5th Oct. 1866	John Cole Chapman.
Machinery or apparatus for spinning cotton and other fibrous materials. (*spur wheel.*)	2596	9th Oct. 1866	James Wood Baker.
Improvements in apparatus for elevating straw and other produce, also applicable to other purposes where gearing is required. (*toothed wheel or gearing.*)	3064	23rd Nov. 1866	John Coulson.
Machinery for carding wool and other fibrous substances. (*construction of stripping pulleys.*)	3121	27th Nov. 1866	James Law.
Improvements in mowing and reaping machines, partly applicable to carriages and other wheeled vehicles. (*bevil wheels, cam wheels, driving wheels.*) (*Communicated by John Gould Perry.*)	3186	4th Dec. 1866	George Haseltine.
Printing machines - - - - (*compound traverse wheel.*)	3196	5th Dec. 1866	Robert Harrild. Horton Harrild.
Looms and shuttles for weaving - - - (*speed pulleys.*) (*Communicated by Benjamin Oldfield and Edward Oldfield.*)	3217	6th Dec. 1866	George Haseltine.
Construction of pulleys and lifting gear for raising and lowering weights.	3286	14th Dec. 1866	Thomas Andrew.
An improved apparatus for moulding the moulds of wheels, pulleys and circular and segmental works in green sand, without patterns.	3333	19th Dec. 1866	Jacob Goodfellow.
Improvements in centrifugal pumps and in the joints or junctions of pipes and tubes. (*Communicated by Louis Coignard.*)	3336	19th Dec. 1866	Michael Henry.
An improved machine for digging potatoes, also applicable to digging for other purposes. (*Communicated by William Hodge Burridge.*)	3361	20th Dec. 1866	William Robert Lake.
Construction of drums, pulleys, "glazers" and cones.	3389	24th Dec. 1866	Joseph Rodgers.
WINDING, REELING AND BALLING YARN AND THREAD.			
Winding apparatus - - - - -	141	16th Jan. 1866	Matthew Andrew Muir. James M'Ilwham.
Certain improvements in the construction of cotton balls.	213	23rd Jan. 1866	Nathaniel Jones Amies.
Machinery and apparatus for winding and reeling yarn.	676	6th March 1866	John Broadbent.
Machinery for balling wool or other fibrous materials - - - - - -	823	20th March 1866	Benjamin Swain. Peter Oldfield.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WINDING, &c.—*continued.*			
Apparatus for spooling and copping threads or yarns. (*Communicated by David Grandy Jun' and Emile Queulain.*)	1042	12th April 1866	William Clark.
Machines for winding or warping and drying yarns (*see* "WEAVING.")	1911	23rd July 1866	Thomas Andrews.
Tubes and skewers for cops - - - (*in reeling or winding.*)	1928	25th July 1866	James Strang.
Winding apparatus - - - - -	2013	4th Aug. 1866	John Boyd.
Improvements in slubbing and roving frames, a modification of which is applicable to winding and throstle frames - - - - -	2131	20th Aug. 1866	Samuel Radcliffe Platt. Edmund Hartley.
Machinery for winding yarn and thread - -	2176	24th Aug. 1866	Henry Wren. John Hopkinson.
Means or apparatus for balling wool and other fibres. (*Communicated by Amédée Prouvost, Jean Baptiste Lefebvre and Henry Lefebvre.*)	2228	29th Aug. 1866	William Colborne Brookes.
Winding apparatus - - - - -	2367	14th Sept. 1866	John Boyd. John M'Pherson. Thomas Knox Kerr. John Taylor.
Improvements in treating and preparing threads, cords, twists, yarns, strands, plaits, strings or other materials, and in connecting them with certain apparatuses for use in sewing, stitching and other purposes, and in the winders or reels on which they may be placed, and in the mode of placing them thereon, also in treating and preparing and placing, connecting and fastening together textile and other fabrics or materials, so as to be sewn or stitched or otherwise connected and fastened together, also in the mode of doing so, and in the textile and other fabrics thus manufactured, also in the machinery or apparatus connected or used therewith.	2624	11th Oct. 1866	William Pidding.
Machinery for winding yarn and thread - -	3362	21st Dec. 1866	Robert Hall. Samuel Standring Hall.
WINDOW-BLINDS, SUN BLINDS, FIRE-SCREENS.			
Rack pullies for roller blinds for windows - -	180	19th Jan. 1866	William Parsons.
Closing the hatchways or deck openings of ships, and side ports or openings in the same.	219	23rd Jan. 1866	Charles Edward Healey Chadwick Healey.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*rollers to carriage blinds.*)	369	7th Feb. 1866	Uriah Scott.
Certain improvements in printing designs on paper for hangings, coverings, sun blinds and other purposes.	467	14th Feb. 1866	Robert Smith.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WINDOW-BLINDS, &c.—*continued.*			
Revolving shutters or blinds - - -	767	14th March 1866	Edwin William Bunnett.
A new or improved kind of expanding window-blinds, cornice poles, blind rollers and other window fittings, also picture rods and stair rods.	857	22nd March 1866	Montagu Archdeacon.
Improvements in greenhouses and specially relating to the fixings, fittings, ventilation and shading of the same. (*rolling up the blinds.*)	1399	17th May 1866	Thomas Hungate Preston Dennis.
An improved hanging centre or centre stop for doors, gates, swing sashes, blinds and other similar uses.	1465	25th May 1866	John William Hoffman.
Improvements in venetian blinds and blind fittings, and in machinery for making the same, parts of which machinery may be used for other purposes.	1706	27th June 1866	Edward Ambrose.
Blinds and shutters for screening and closing windows and other openings.	1796	7th July 1866	Alexander Clark.
An improved roller for window-blinds, maps, almanacks and other similar articles.	1893	21st July 1866	William Stamford Davis.
Apparatus for lowering and raising window-blinds, curtains, maps and the like - - -	1944	26th July 1866	John William Hoffman. George Rowe Wilson.
Apparatus for holding and releasing cords, chains, ropes and bands - - - -	1979	1st Aug. 1866	Walter Beaumont. William McMaster.
Improvements in uniting and securing together or ornamenting certain parts of metal bedsteads and other furniture in metal, and also in the formation of screens, grilles and metal railing.	2613	9th Oct. 1866	George Pitt.
Manufacture of coloured glass windows and other translucent surfaces. (*window-blinds.*)	2665	15th Oct. 1866	Philip Harry Newman.
Ornamenting and reducing certain figured and embossed surfaces for various useful purposes. (*for screens.*)	2937	10th Nov. 1866	Gustave Josse.
Preparation or treatment of fabrics or materials for the manufacture of various useful articles. (*blinds, hand screens, &c.*) (*Communicated by Rufina Nöggerath-Temmerman.*)	2972	13th Nov. 1866	William Clark.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture. (*blind cords.*)	3225	7th Dec. 1866	William Guest.
Apparatus for raising and lowering window-blinds, windows, maps and other articles, and retaining them in any required position.	3366	21st Dec. 1866	George Allix.
Improvements in the construction of venetian blinds and in mechanism to be used in connection therewith - - - -	3379	22nd Dec. 1866	Samuel Mitchell. John Mitchell.

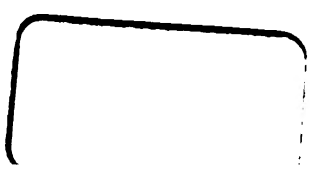
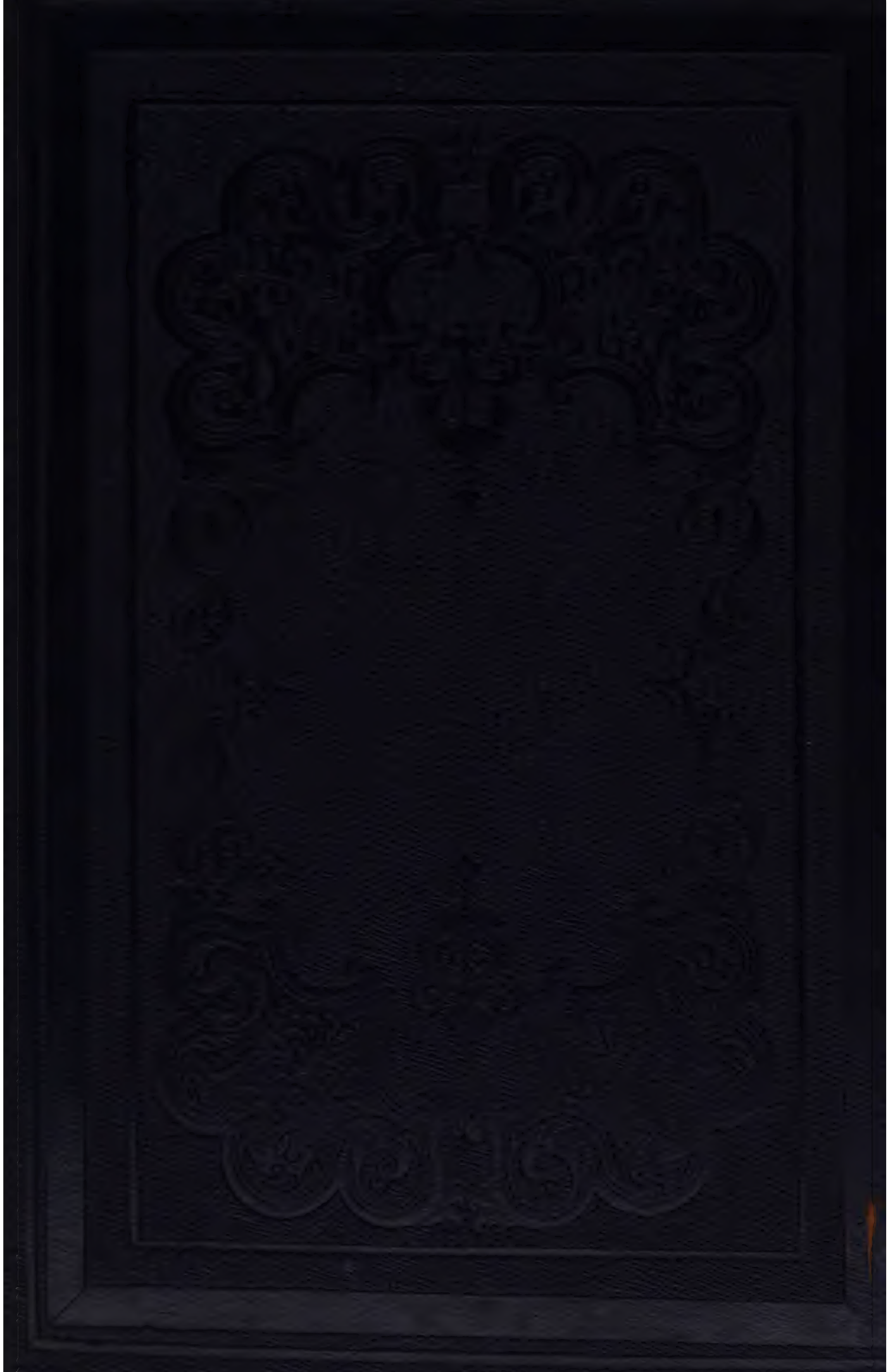
Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WINDOWS AND SASHES, WINDOW-FRAMES AND SHUTTERS.			
Improvements in sash fastenings, which improvements are also applicable to other purposes.	215	23rd Jan. 1866	Thomas Baker.
Window fastenings - - - - -	254	25th Jan. 1866	David Jones. John Upton.
Securing the hatchways, sky lights and other openings of steam and other ships or vessels.	343	3rd Feb. 1866	Edward Montagu Leeds.
Improvements in various parts of railway and other carriages, some of which may be applied to other purposes. (*carriage windows.*)	369	7th Feb. 1866	Uriah Scott.
Machinery or apparatus for mortising or cutting holes or mortises in wood. (*window frames.*)	377	7th Feb. 1866	Alexander Clark.
Revolving shutters - - - - -	601	27th Feb. 1866	Jabez Henry Forshaw.
Improvements in the construction and mounting of safes, part of which improvements is applicable to shutters and doors of buildings where security is required.	641	2nd March 1866	James Tansley.
Sliding shutters for shop and other windows -	745	12th March 1866	John Henry Mullin.
New or improved mechanism for obtaining motive-power, particularly applicable for the self winding of clocks, time-pieces and other machinery requiring winding. (*raising greenhouse windows.*)	752	13th March 1866	Fredrich Gustav Adolph Horstmann.
Revolving shutters or blinds - - -	767	14th March 1866	Edwin William Bunnett.
Casement and other stays - - -	784	16th March 1866	Edmund Tonks.
Closing hatchway skylights of ships and vessels -	855	22nd March 1866	William Robinson Mulley.
Construction of the roofs of horticultural and other buildings and structures. (*and glazing.*)	962	4th April 1866	William Howitt.
Sash fasteners - - - - - -	1065	16th April 1866	Josiah Adams.
Apparatus or machinery for raising and lowering revolving shutters.	1170	26th April 1866	Thomas Kirby.
Balancing and raising or lowering window sashes -	1211	28th April 1866	Charles Albert Bagenal Target.
Improved modes of and apparatus for opening and closing railway carriage and other windows.	1392	16th May 1866	George Augustus Elliott.
An improved hanging centre or centre stop for doors, gates, swing sashes, blinds and other similar uses.	1465	25th May 1866	John William Hoffman.
Construction of hydraulic presses for the manufacture of sheet lead pipes, bars and window lead.	1482	28th May 1866	Henry Stuttle.
Improvements in opening, closing and securing windows, doors and shutters, and in the machinery or apparatus employed therefor.	1616	14th June 1866	James Carter.
Carriage windows and other sliding frames -	1735	29th June 1866	John Imray. Joseph Ellis.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WINDOWS, &c.—*continued.*			
An improved and simple method for the working of perpendicular sliding sashes, doors and shutters or any other perpendicular sliding fittings, by the aid of spring rollers, and the construction of the self-securing moveable beads to admit of such sliding sashes, doors and shutters, or other perpendicular sliding fittings, being taken out for the purpose of cleaning or otherwise - - - - - -	2089	15th Aug. 1866	Henry James Petty. Charles Frederick Sayer.
Pulleys for hanging balance sashes - -	2216	28th Aug. 1866	Henry Morgan.
A new or improved mode of obtaining motive-power, which power can be used for winding clocks, timepieces and other mechanism, and also for ventilating hothouses, greenhouses and all buildings where a uniform temperature is desirable. (*opening and closing windows.*)	2353	13th Sept. 1866	Frederich Gustav Adolph Horstmann.
An improved construction of weight - - - (*for window sashes.*) (*Communicated by Daniel Baker Lacy, Isaac Augustus Lacy and Thomas Thompson Lacy.*)	2430	21st Sept. 1866	Alfred Vincent Newton.
Apparatus for lifting or assisting to lift and for securing window sashes, shutters and other like frames and weights.	2511	28th Sept. 1866	Strother Price.
A new or improved fastening for windows and other places.	2582	8th Oct. 1866	John Henry Roberts.
Manufacture of coloured glass windows and other translucent surfaces.	2665	15th Oct. 1866	Philip Harry Newman.
Fire-escapes and apparatus for raising and lowering weights, the same being applicable to other useful purposes. (*supports for window cleaners.*)	2816	31st Oct. 1866	John Scott.
Improved means of forming joints between sashes, doors, drawers and other structures, and the frames in which they move or are fitted.	2959	12th Nov. 1866	John Richard Cadman.
Cast-iron sash windows to be adapted to purlin tile or slate roofing.	3199	5th Dec. 1866	Victor Vandroy.
Improvements applicable to window sashes and frames.	3264	12th Dec. 1866	Thomas Jones.
Apparatus for raising and lowering window-blinds, windows, maps and other articles, and retaining them in any required position.	3366	21st Dec. 1866	George Allix.
WIRE-WORKING; WIRE-ROPES; TELEGRAPH CABLES.			
Treatment and application of vegetable fibres - (*for covering telegraphic cables.*)	14	2nd Jan. 1866	Werner Staufen.
Improvements in submarine telegraph cables, and in submerging and raising submarine telegraph cables.	195	20th Jan. 1866	Thomas Hutton.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WIRE-WORKING, &c.—*continued.*			
Improved compositions for preserving metals from oxidation, corrosion and galvanic action, for protecting metals used in the construction of ships against the destructive effects of sea water and preventing their fouling, for protecting wood from the attacks of animalculæ, and preserving wood from damp, rot and decay, for excluding damp from walls, and for use in submarine and other telegraphy.	394	8th Feb. 1866	Henry Edward Francis De Briou.
Improved machinery or apparatus to be employed in the manufacture of jacquard wires used in looms for weaving - - - - -	417	10th Feb. 1866	John Binns. William Binns.
An improved construction of submarine telegraphic cable for the transmission of electric despatches	466	14th Feb. 1866	Henry Ernest Baron de Gablenz junr. Henry Mahler.
Improvements in the construction of electric telegraph conductors, and in the method of preparing and laying the same, also in the machinery or apparatus to be employed therein.	480	15th Feb. 1866	Donald Nicoll.
Machinery for rolling wire and wire rods - -	485	15th Feb. 1866	George Bedson.
Reeds used in looms for weaving - - -	546	22th Feb. 1866	Matthew Robinson. John Robinson. William Smith.
Improvements in screw rivets for boot pegs and screw nails for various purposes, and in machinery for the manufacture of screw rivets and screw nails, a part of which improvements in machinery may also be applied to other purposes.	623	1st March 1866	Alfred Christmas Andrews.
Electric telegraphs - - - - - (*loop wires.*)	932	31st March 1866	Samuel Manley Martin. Samuel Alfred Varley. Frederick Henry Varley.
Insulators for telegraph wires - - - (*Communicated by David Brooks.*)	1226	1st May 1866	George Davies.
Machinery for the manufacture of coiled springs packed with wool or other fibrous materials.	1459	25th May 1866	James William Evans.
Machinery or apparatus for the manufacture of metal rods, bars and tubes, together with a new or improved motive-power for communicating motion to the same - - - -	1462	25th May 1866	William Gibson. Edward Ellis.
An improved mode of connecting metallic wires - (*Communicated by Nathan Bloch.*)	1503	29th May 1866	William Edward Newton.
Construction of submarine telegraph cables - (*Communicated by Pierre François Léon Périmé.*)	1749	2nd July 1866	Henri Adrien Bonneville.
Construction and laying down of subterraneous telegraphic wires. (*Communicated by Pierre François Léon Périmé.*)	1751	2nd July 1866	Henri Adrien Bonneville.
Treatment and application of vegetable fibres - (*for covering telegraph cables.*)	1761	2nd July 1866	Werner Staufen.
Manufacture of machine wires - - -	1772	4th July 1866	William M'Allum.
Certain improvements in connectors for uniting wires, bands, ropes or electric telegraph cables, or other like ropes or cables composed partly of wire and partly of hemp or other desirable compound material - - - - -	1825	11th July 1866	Charles William Farmer. William Edward Partridge. Byron Jesse Philip Webb.
Elastic fabrics - - - - - -	1870	18th July 1866	John Macintosh. William Boggett.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WIRE-WORKING, &c.—*continued.*			
Apparatus for holding and releasing cords, chains, ropes and bands - - - - - (*telegraph cables.*)	1979	1st Aug. 1866	Walter Beaumont. William McMaster.
A new and improved method for insulating and protecting electric telegraph wires for submarine, subterranean and other lines, with improvements in the machinery and in the process and material.	1989	2nd Aug. 1866	William Alfred Marshall.
An improved telegraphic cable - - - (*Communicated by Alexander John Baptiste De Morat.*)	2052	9th Aug. 1866	William Robert Lake.
Improved machinery for twisting into bands cotton, linen, woollen, silk, hemp or wire -	2324	10th Sept. 1866	Peter John Railton. David Walton.
Electric telegraph conductors - - - (*Communicated by John Montgomery Batchelder.*)	2329	10th Sept. 1866	John Henry Johnson.
Machinery or apparatus to be employed in the manufacture of fish hooks.	2368	14th Sept. 1866	John Bindley.
Straining or tightening wire - - -	2397	18th Sept. 1866	Joseph Henry Sams.
An improved fabric to be used for the manufacture of driving belts, hose and for other useful purposes. (*Communicated by Thomas Roberts White and William Glenn Bedford.*)	2422	21st Sept. 1866	George Davies.
Wire cards and combs or heckles used in the preparation of cotton, wool and other fibrous materials.	2431	21st Sept. 1866	James Clark.
An improved composition to be substituted for ordinary paints - - - - - (*for insulating telegraph wires.*)	2540	3rd Oct. 1866	William Hope. Henry Browning.
Folding fencing - - - - -	2595	9th Oct. 1866	Joseph Greening.
Packing pistons and stuffing boxes - - - (*Communicated by Jones Saunders.*)	2699	18th Oct. 1866	James Hosken.
Machinery for compressing, rounding or pointing wires or rods to form pins, needles or other article of metal - - -	2714	20th Oct. 1866	Orin Lewis Hopson. Heman Porter Brooks.
A new metallic brush - - - -	2817	31st Oct. 1866	Thomas Welton.
Fastenings and backing for armour plates - - (*bolts of wire rope.*) (*Communicated by John Gregory.*)	2821	31st Oct. 1866	Henry Headley Williams.
Construction of electric telegraph cables, lines and transmitting instruments connected therewith.	2870	6th Nov. 1866	Thomas Walker.
Improvements in impermeable mastic compositions, and in their application for various useful purposes. (*for insulating wire.*) (*Communicated by Jean François Abraham Henri de Rivière and Jean Laurent Auguste Muchabée.*)	3130	28th Nov. 1866	William Clark.
Improvements in insulating and protecting electric telegraph wires, and in the means or apparatus employed therein.	3192	4th Dec. 1866	William Alfred Marshall.
Improvements in the manufacture of cords or ropes from strands of fibrous material or wire, and in the machinery employed in such manufacture.	3225	7th Dec. 1866	William Guest.
Construction of telegraph standards and insulators	3281	13th Dec. 1866	Charles Coles Adley.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
Wood and Veneers; Artificial Wood.			
Preparing and treating wood and wood pulp for the manufacture of paper. (*Communicated by Jean Baptiste Neyret, Zephirin Gaspard Alexandre Nathan Petrone Orioli and Amable Alfred Fredet.*)	35	4th Jan. 1866	William Clark.
Machines for graining in imitation of wood and marble. (*Communicated by Robert Adams.*)	186	20th Jan. 1866	George Tomlinson Bousfield.
Manufacture of printed floor cloths, oil cloths, table covers and other similar fabrics - - (*imitating woods.*)	278	29th Jan. 1866	William Hersee. George Smyth.
Working and treating india-rubber, gutta-percha and other similar gums. (*to imitate woods.*) (*Communicated by Frank Marquard.*)	300	31st Jan. 1866	William Robert Lake.
Machinery or apparatus for mortising or cutting holes or mortises in wood.	377	7th Feb. 1866	Alexander Clark.
Machinery for laying veneers on to surfaces -	419	10th Feb. 1866	Henry Charles Clifton.
Combining together surfaces of wood - -	451	13th Feb. 1866	Samuel Drake.
Heating apparatus used for melting glue and for heating wood and irons. (*irons for veneering.*)	459	13th Feb. 1866	William Cotter.
Tools for dividing wood into cylinders - -	654	3rd March 1866	Nathan Thompson.
Machinery or apparatus for laying veneers on to mouldings and other surfaces.	809	19th March 1866	James Chambers.
An improved process and apparatus for producing ornamental surfaces on wood.	999	7th April 1866	Hamilton Wood.
Means or apparatus employed in drilling and ornamenting metal, wood and other similar substances.	1045	13th April 1866	William John Cunningham.
Application of materials to surfaces for ornamental purposes. (*ornamenting wood.*)	1150	23rd April 1866	Henry Davidson Plimsoll.
Machinery for veneering mouldings or other surfaces.	1152	24th April 1866	Robert Thompson.
Manufacture of paper hangings - - - (*producing imitation sculptured wood.*)	1447	23rd May 1866	Paul Marie Balin.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - -	1643	19th June 1866	Thomas Chaloner. James Billington.
Manufacture of pulp - - - -	1654	20th June 1866	David Adam Fyffe.
New or improved plastic compounds applicable to various purposes where wood, horn and other like substances are now employed.	1760	2nd July 1866	Franz Fried.
Ornamenting, printing, cutting and manufacturing articles from wood and other materials.	1898	21st July 1866	Edward Tomlinson.
Improvements in dyeing and hardening dyed woods, and also in preparing wood to be used in the manufacture of the cylinders of carding engines. (*Communicated by Barton Howard Jenks.*)	1937	25th July 1866	William Edward Newton.
Imitating mother of pearl upon various surfaces - (*Communicated by Charles Sticht.*)	1972	31st July 1866	William Edward Gedge.

Subject-matter of Patent.	Number of Patent.	Date.	Name of Patentee.
WOOD, &c.—*continued.*			
Improved machinery or apparatus and processes for the manufacture of paper pulp from wood and other fibrous materials - - -	1980	1st Aug. 1866	Joseph Sawyer. Frederick Bauman.
An improved process for bleaching with the aid of hydrostatic and pneumatic pressure, conjointly or separately, wood, straw and other fibrous material, for the manufacture of paper pulp, and for bleaching flax, hemp, thread, yarns, felts, cloth and other fibrous and textile materials. (*Communicated by Henry Jones, Duncan Farquharson and Isaac Cowles Colton.*)	2156	22nd Aug. 1866	George Haseltine.
Softening, disintegrating and bleaching vegetable fibres. (*wood, bamboo, &c.*)	2236	30th Aug. 1866	James Montague Mellor
An improved manufacture of studs, buttons, ornamental plates and analogous articles used in saddlery and harness, upholstery, military equipments, clothing and for other purposes, making them either of rolled, cast or wrought metal, or of any hard material, such as horn, ivory, gutta-percha, wood or hardened india-rubber, and with two or several shanks or metal fastening rings or prongs. (*Communicated by Lorenzo Salvy.*)	2322	10th Sept. 1866	William Edward Gedge.
Improvements in treating vegetable substances chiefly applicable to the manufacture of paper pulp and fibres. (*Communicated by Benjamin Chew Tilghman.*)	2924	9th Nov. 1866	William Edward Newton.
Construction of tools for graining and putting in the 'bates' or pores representing different timbers - - - - - (*see* "PAINTING.")	3235	8th Dec. 1866	Thomas Chaloner. James Billington.
Improvements in apparatus and material for ornamental painting, graining, marbling and such like purposes. (*imitation of wood.*)	3330	18th Dec. 1866	Thomas Titterington.
An improved process for preparing wood and other materials preparatory to ornamenting or graining the same, and also for finishing materials so prepared when ornamented or grained, and for finishing wood and other materials when painted or grained but not prepared by the said process.	3369	21st Dec. 1866	Samuel Jacobs.
Producing printing surfaces and carvings from moulds obtained by the aid of photography.	3393	24th Dec. 1866	Robert Howie Ashton.
For sawing wood, *see* "CUTTING." For preserving timber, *see* "PRESERVING WOOD."			

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